National Environmental Research Institute
Ministry of the Environment · Denmark

Emission Inventories

Denmark's National Inventory Report

Submitted under the United Nations Framework Convention on Climate Change, 1990-2001

Research Notes from NERI No. 181

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Data sheet

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Abstract: This report is Denmark's National Inventory Report reported to the Conference of the Parties under the United Nations Framework Convention on Climate Change (UNFCCC) due by 15 April 2003. The report contains information on Denmark's inventories for all years' from 1990 to 2001 for CO_2, CH_4, N_2O, CO, NMVOC, SO_2 , HFCs, PFCs and SF_6.

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Introduction

According to decision 3/CP.5 taken under the United Nations Framework Convention on Climate Change (UNFCCC) by the Conference of the Parties at its fifth session in November 1999, including the adoption of UNFCCC REPORTING GUIDELINES ON ANNUAL INVENTORIES contained in the document FCCC/CP/1999/7, each developed country Party to the Convention shall annually submit to the Conference of the Parties, through the secretariat, a national inventory report containing detailed and complete information on their inventories for all years from the base year to the year of the current annual inventory submission, in order to ensure the transparency of the inventory.

This report is Denmark's National Inventory Report due by 15 April 2003. The report contains information on Denmark's inventories for all years from 1990 to 2001.

According to the UNFCCC REPORTING GUIDELINES ON ANNUAL INVENTORIES the following issues are addressed in the report:

(a) The annual inventory information 1990-2001
(b) Database information
(c) Methodologies
(d) References regarding methodologies, emission factors and activity data
(e) Assumptions underlying the emission and removal estimates
(f) Feedstocks and bunkers
(g) Recalculations
(h) Uncertainties
(i) Information on quality assurance/quality control (QA/QC)
(j) Changes with respect to the previous years
(k) Reviews of Denmark's National Inventory reports submitted 2001 and 2002

The report contains the following appendices:

Appendix 1:	1.1	Denmark's annual emission inventories 1990 – 2001 to the Climate Convention in CRF
	1.2	Total emissions for Denmark, Greenland and the Faroe Islands.
Appendix 2:		Emission trends 1990-2001 adjusted for electricity exchange and inter-annual temperature variations
Appendix 3:		Information on Greenland and the Faroe Islands
Appendix 4:		The specific methodologies regarding Stationary Combustion Plants
Appendix 5:		The specific methodologies regarding Fugitive Emissions from Fuels
Appendix 6:		The specific methodologies regarding Transport
Appendix 7:		The specific methodologies regarding Industrial Processes
Appendix 8:		The specific methodologies regarding Solvents
Appendix 9:		The specific methodologies regarding Agriculture
Appendix 10:		The specific methodologies regarding Forestry
Appendix 11:		The specific methodologies regarding Waste
Appendix 12:		Key Sources Analyses for year 2001
Appendix 13:		The specific methodologies regarding adjustments
Appendix 14:		Uncertainty

(a) The annual inventory information 1990 - 2001

The annual emission inventories for Denmark for 1990 to 2001 are given in Appendix 1.1 and includes tables in CRF for each year.

The following CRF-tables are completed for years 1990-2001, unless other indication is given:

- Table 1: Sectoral Report for Energy
  A: Fuel Combustion Activities
  B: Fugitive Emissions from Fuels
  Memo Items
- Table 1.A(a): Sectoral Background Data for Energy
  Fuel Combustion Activities - Sectoral Approach
- Table 1.A(b): Sectoral Background Data for energy
  CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
- Table 1.A(c) Comparison of CO_2 Emissions from Fuel Combustion
- Table 1.A(d): Sectoral Background Data for Energy
  Feedstock and Non-Energy Use of Fuels
- Table 1.B.1: Sectoral background data for energy
  Fugitive Emissions from Solid Fuels
- Table 1.B.2: Sectoral background data for energy
  Fugitive Emissions from Oil and Natural Gas
- Table 1.C: Sectoral background data for energy
  International Bunkers and Multilateral Operations
- Table 2(I): Sectoral Report for Industrial Processes
  A: Mineral Products
  B: Chemical Industry
  C: Metal Production
  D: Other Production
  F: Consumption of Halocarbons and SF_6
- Table 2(I). A-G: Sectoral Background Data for Industrial Processes
- Table 2(II): Sectoral Report for Industrial Processes – Emissions of HFCs, PFCs and SF_6
- Table 2(II). C, E: Sectoral Background Data for Industrial Processes
  Metal Production of Halocarbons and SF_6
- Table 2(II). F: Sectoral Background Data for Industrial Processes
  Consumption of Halocorbons and SF_6
- Table 3: Sectoral Report for Solvent and Other Product Use
- Table 4: Sectoral Report for Agriculture
  A: Enteric Fermentation
  B: Manure Management
  D: Agricultural Soils
- Table 4.A: Sectoral Background Data for Agriculture
  Enteric Fermentation
- Table 4.B(a): Sectoral Background Data for Agriculture
  CH_4 Emissions from Manure Management
- Table 4.B(b): Sectoral Background Data for Agriculture
  N_2O Emissions from Manure Management (2001 only)
- Table 4.D: Sectoral Background Data for Agriculture
  Agriculture Soils

- Table 5: Sectoral Report for Land-Use Change and Forestry
- Table 5.A: Sectoral Background Data for Land-Use Change and Forestry
  Changes in Forests and Other Woody Biomass Stocks (2001 only)
- Table 6: Sectoral Report for Waste
  A: Solid Waste Disposal on Land
- Table 6.A: Sectoral background data for waste
  Solid Waste Disposal
- Summary 1.A: Summary Report for National Greenhouse Gas Inventories (IPCC table 7A)
- Summary 1.B: Short Summary Report for National Greenhouse Gas Inventories (IPCC table 7B)
- Summary 2: Summary Report for CO_2 Equivalent Emissions
- Summary 3: Summary Report for Methods and Emission Factors Used
- Other: Overview Table For National Greenhouse Gas Inventories (IPCC Table 8A)
  Table 8(a) Recalculation Recalculated Data (1990-2000)
  Table 8(b) Recalculation Explanatory Information (1990-2000)
  Table 9 Completeness
  Table 10: Emissions Trends (2001 only)
  Emissions Trends (CO_2)
  Emissions Trends (CH_4)
  Emissions Trends (N_2O)
  Emissions Trends (HFCs, PFCs and SF_6)
  Emissions Trends (Summary)
- Table 11: Check List of Inventory Information

The tables above marked "2001 only", indicates that these tables have until now only been filled in for year 2001. At this stage of the development of the CRF reports for Denmark, the following tables have now been filled in more completely for year 2001 than for 1990-2000: Table 4.B(b) (Sectoral Background Data for Agriculture, N_2O Emissions from Manure management). For 1990-2001 the following tables are not relevant for Denmark: Table 4.C (Sectoral Background Data for Agriculture, Rice Cultivation), Table 4.E (Sectoral Background Data for Agriculture, Prescribed Burning of Savannas) and Table 4.F (Sectoral Background Data for Agriculture, Field Burning of Agricultural Residues). The latter has not been relevant since 1990 where field burning was forbidden by law.

Emission of Greenhouse Gases in Denmark – Sources and Trends

Greenhouse gas emissions in CO_2 equivalents

The greenhouse gas emissions are estimated according to the IPCC guidelines and are aggregated in seven main sectors. The greenhouse gases include CO_2, CH_4, N_2O, HFCs, PFCs and SF_6. Figure 1 shows the estimated total greenhouse gas emissions with CO_2 removal by forestry in CO_2 equivalents from 1990 to 2001. The emissions are not corrected for electricity trade or temperature variations. CO_2 is the most important greenhouse gas followed by N_2O and CH_4 in relative importance. The contribution to national totals from HFCs, PFCs and SF_6 is less than 1%. Stationary combustion plants, transport and agriculture are the largest sources. The removal by forestry is about 5% of the total emissions in CO_2 equivalents. The national total of greenhouse gas emissions in CO_2 equivalents is almost equal in 1990 and in 2001.

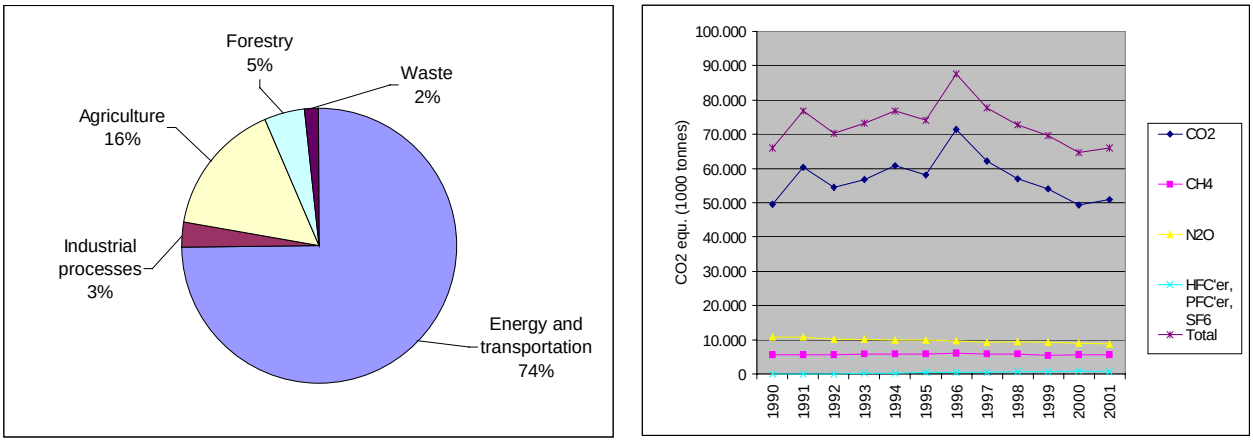

Figure 1. Greenhouse gas emissions in CO_2 equivalents. Time series for 1990 to 2001 and distribution on main sectors for 2001.

Carbon dioxide

The largest source to the emission of CO_2 is the energy sector, which includes combustion of fossil fuels like oil, coal and natural gas. Public power and district heating plants contribute with about half of the emissions. About 22% derive from the transport sector. The actual CO_2 emission increased by about 3% from 2000 to 2001. This was mainly due to net export of electricity and lower outdoor temperature in 2001 compared with 2000. Further, the electricity production by wind turbines was less than expected due to poor wind conditions. If the CO_2 emission is adjusted for climatic variations and electricity trade with other countries the CO_2 emission has decreased by 12% since 1990 despite an almost constant gross energy consumption and an increase in the gross national product of 27%. This is due to change of fuel from coal to natural gas and renewable energy. As a result of the lower consumption of coal in recent years the main part of the CO_2 emission stems from oil combustion. In 2001 the actual CO_2 emission was almost the same as the emission in 1990.

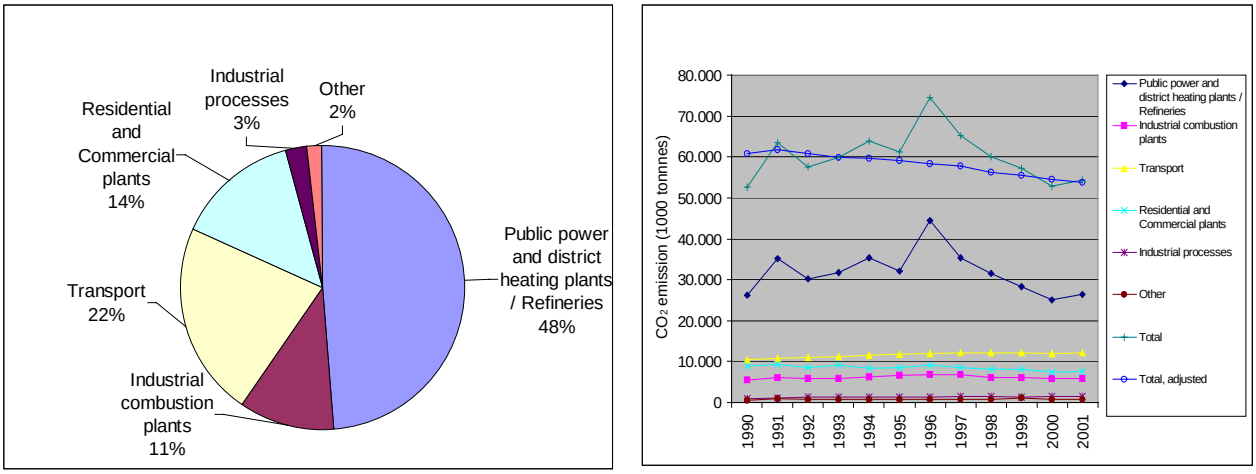

Figure 2. CO_2 emissions. Time series for 1990 to 2001 and distribution on main sectors for 2001.

Nitrous oxide

Agriculture is the most important N_2O emission source (Figure 2). N_2O is emitted as a result of microbial processes in the soil. Substantial emissions also derive drainage water and coastal waters where nitrogen is converted to N_2O through bacterial processes. However, the nitrogen converted in these processes originates mainly from the agricultural use of manure and fertilisers. The main reason for the drop in the

emissions is caused by demands according to legislation to an improved utilisation of nitrogen in manure. This results in less nitrogen excreted per unit produced and a considerably reduction in use of fertiliser. The basis for N_2O emission is then reduced. About 9% derive combustion of fossil fuels and transport accounts for about 4%. The N_2O emission from transport has increased in the nineties because of increasing use of catalyst cars.

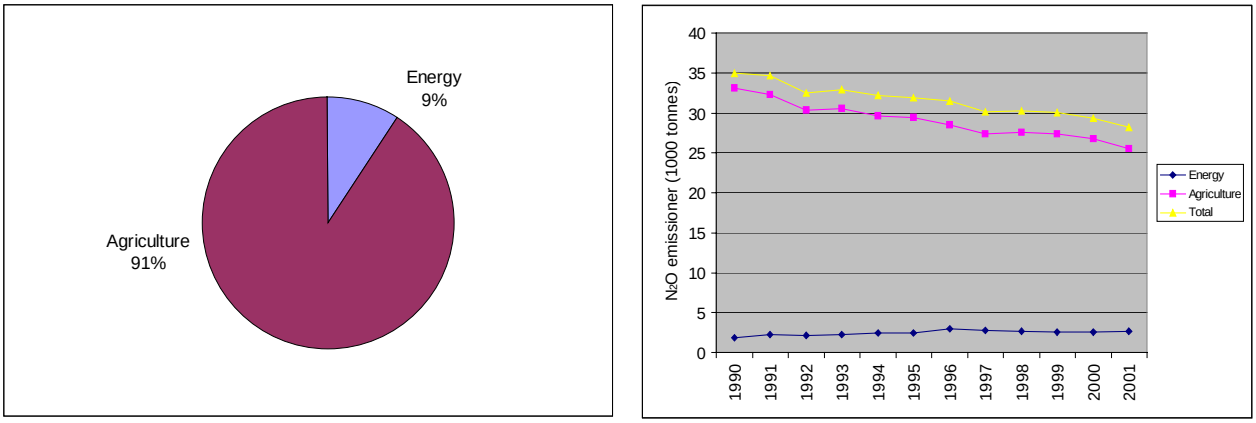

Figure 3. N_2O emissions. Time series for 1990 to 2001 and distribution on main sectors for 2001.

Methane

The largest sources to anthropogenic CH_4 emissions are: Agricultureral activities, managed waste disposal on land, public power and district heating plants. The emission from agriculture derives from enteric fermentation and management of animal manure. The increasing CH_4 emissions from public power and district heating plants are due to increasing use of stationary gas engines in the decentralised cogeneration plants sector. About 3% of the natural gas in the gas engines are not combusted. From 1990 the emission of CH_4 from enteric fermentation has decreased because of a decreasing number of dairy cattle. CH_4 from waste disposal is decreasing slightly due to increasing use of waste for incineration.

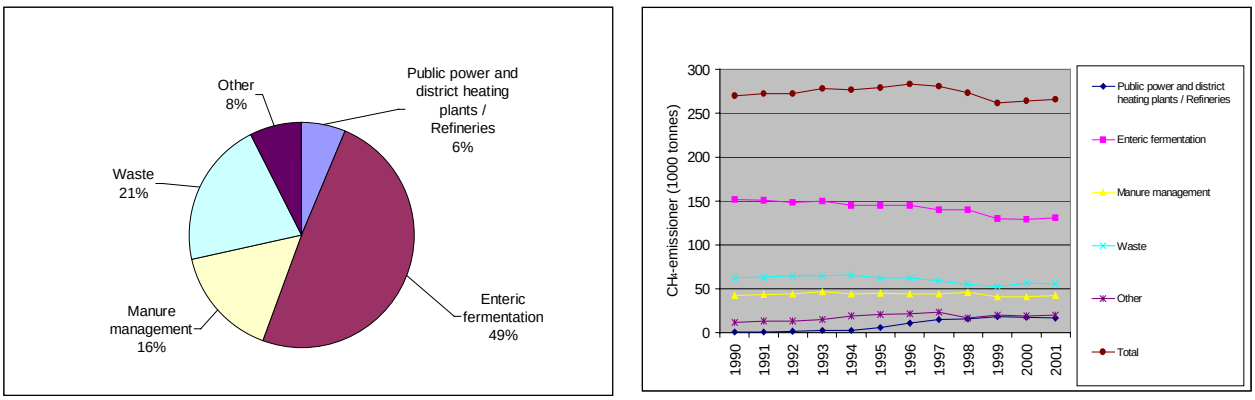

Figure 4. CH_4 emissions. Time series for 1990 to 2001 and distribution on main sectors for 2001.

HFCs, PFCs and SF6

This part of the Danish inventory only has data on all substances back to 1993. Since then and until 2000 there has been a continuous increase in the contribution of the sum of F-gases considering their sum of emissions in CO_2-equivalents. In 2001 the increase stopped and from 2000 to 2001 there is a decrease. The reasons for these trends are several. SF_6 contributed considerably in the first part of the period, in 1993 by 58%. Environmental awareness and facing regulation of this gas in Danish law has decreased its industrial use and its contribution in 2001 is about 4%. The use of HFCs,

and especially HFC-134a as a main contributor to the HFCs, has increased several folds and the model for the emissions responds with increasing emissions. Thus HFCs has become a very dominating F-gas from 42% in 1993 to 92% in 2001. HFC-134a is mainly used as a refrigerant. However, the tendency is that the use of HFC-134a, as well as the use of other HFCs as refrigerant, is stagnant or falling. This is due to Danish law, that forbids new HFC based refrigerant stationary systems from 2007. Counter to this trend is the increasing use of air conditioning systems, among these mobile systems.

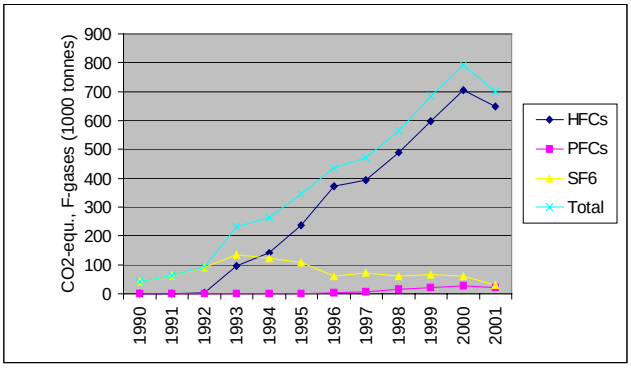

Figure 4. F-fag emissions. Time series for 1990 to 2001.

Geographic coverage

According to the instrument of ratification the Danish government has ratified the UN Framework Convention on Climate Change on behalf of Denmark, Greenland and the Faroe Islands. Appendix 1.2 contains total emissions for Denmark, Greenland and the Faroe Islands for 1990 to 2001. However, it has not been possible to present a complete inventory in CRF. In Appendix 3 information on the Greenland and the Faroe Islands inventories are given. Apart from Appendix 1.2 and 3 the information in this report only relates to Denmark.

Data for assessment of progress in the implementation of policies and measures with an effect on the national energy consumption

For the purpose of assessment of progress in the implementation of policies and measures with an effect on the national energy consumption and in accordance with the UNFCCC REPORTING GUIDELINES ON ANNUAL INVENTORIES appendix 2 contains a table with GHG trend data 1990-2001 with CO_2 emissions and Totals adjusted for both electricity exchange and inter-annual temperature variations.

(b) Database information

The emission inventory tables are made from the Danish CORINAIR-database (Illerup et al., 2003) and detailed information on the emission factors and activity data is available electronically on request. In Appendices 4-10 tables with emission factors used in the 1990 and 2001 emission inventories are shown.

The Danish databases are stored in Access 97 and are handled with software developed by the European Environmental Agency. For data handling the software tool is CollectER (Pulles et al., 1999a) and for the CRF reporting the software tool is ReportER (Pulles et al., 1999b).

(c) Methodologies

The general methodology

Denmark's air emission inventories are based on the CORINAIR methodology. CORINAIR (COoRdination of Information on AIR emissions) is the most extensive European air emission inventory programme for national sector-wise emission estimations harmonised with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (Houghton et al., 1997). To ensure estimates as timely, consistent, transparent, accurate and comparable as possible, the inventory programme has developed calculation methodologies for most sub-sectors and software for storing and further data processing (Richardson, S. (Ed), 1999).

A thorough description of the CORINAIR inventory programme used for Danish emission estimations is given in Illerup et al. (2000). The CORINAIR calculation principle is to calculate the emissions as activities times emission factors. Activities are numbers referring to a specific process generating emissions, while an emission factor is the mass of emissions per unit activity. Information on activities to carry out the CORINAIR inventory is mainly based on official statistics. The most consistent emission factors have been used, either as measured values or default factors proposed by the CORINAIR methodology.

A list of all sub-sectors on the most detailed level is given in Illerup et al., 2000. Incorporated in the CORINAIR software is a feature to serve the specific UNFCCC and UNECE convention needs for emission reporting. The translation between CORINAIR and IPCC codes for sector classifications are listed in Illerup et al, 2000.

The CORINAIR methodology is the general methodology used. Some parts of the underlying methodologies are taken directly from the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories and some parts have been elaborated to reflect better national circumstances in accordance with the underlying principles of these guidelines. The underlying methodologies for each sector are described below.

The specific methodologies regarding Stationary Combustion Plants

Stationary combustion plants are part of the CRF emission sources *1A1 Energy Industries*, *1A2 Manufacturing Industries* and *1A4 Other sectors*.

The Danish emission inventory for stationary combustion plants is based on the CORINAIR system described in the Emission Inventory Guidebook 3rd edition. The inventory is based on activity rates from the Danish energy statistics and on emission factors for different fuels, plants and sectors.

The Danish Energy Authority aggregates fuel consumption rates in the official Danish energy statistics to SNAP categories.

For each of the fuel and SNAP categories (sector and e.g. type of plant) a set of general emission factors has been determined. Some emission factors refer to the EMEP/CorinAir Guidebook and some are country specific and refers to Danish legislation, Danish research reports or calculations based on emission data from a considerable number of plants.

Some of the large plants like e.g. power plants and municipal waste incineration plants are registered individually as large point sources and emission data from the actual plants are used. This enables use of plant specific emission factors that refers to

emission measurements stated in annual environmental reports etc. At present the emission factors for CO_2, CH_4 and N_2O are, however, not plant specific whereas emission factors of SO_2 and NO_x often are.

The CO_2 from incineration of the plastic part of municipal waste is included in the Danish inventory.

In addition to the detailed emission calculation in the national approach CO_2 emission from fuel combustion is aggregated using the reference approach. In 2001 the CO_2 emission inventory based on the reference approach and the national approach respectively differs 0,94%.

Improved emission factors for cogeneration plants <25MW_e will be implemented next year. An improved inventory of CO_2 emission from incineration of the plastic part of municipal waste is also planned.

Please refer to appendix 4 for further information about emission inventories for stationary combustion plants.

The specific methodologies regarding Fugitive Emissions from Fuels

Fugitive emissions from solid fuels (1.B.1.c)

Storage and handling of coal:

Coal mining is not occurring in Denmark, but power plants use a considerable amount of coal. CH_4 emission from storage and handling of coal is included in the Danish inventory. The CH_4 emission inventory is based on tier 1 in 'IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual'. The CH_4 emission occurring in Denmark is assumed to be half the post-mining emission.

Fugitive emissions from natural gas (1.B.2.b)

Natural gas transmission and distribution:

Inventories of CH_4 emission from gas transmission and distribution is based on annual environmental reports from the Danish gas transmission company, DONG, and on a Danish inventory for the years 1999-2001 reported by the Danish gas sector (transmission and distribution companies).

Off-shore activities:

Rough estimates for the emission of CH_4 from extraction of oil and gas are made for the years 1994 to 2001. At present a project has been initiated to present consistent inventories from 1990.

Fugitive emissions from oil (1.B.2. a)

Oil Refineries – Petroleum products processing:

The VOC emissions from petroleum refinery processes cover non-combustion emissions from feed stock handling/storage, petroleum products processing, product storage/handling and flaring. SO_2 is also emitted from the non-combustion processes and includes emissions from products processing and sulphur recovery plants. The emission calculations are based on information from the Danish refineries and the Energy statistic.

Please refer to appendix 5 for further information about fugitive emissions from fuels.

The specific methodologies regarding Transport

The emissions from transport referring to SNAP category 07 (road transport) and the sub-categories in 08 (other mobile sources) are included in the CRF: 1A3b (road transport), 1A2f (Industry-other), 1A3a (Civil aviation), 1A3c (Railways), 1A3d (Navigation), 1A4c (Agriculture/forestry/fisheries), 1A4b (Residential) and 1A5 (Other).

The European COPERT III emission model is used to calculate the Danish annual emissions for road traffic. In COPERT III the emissions are calculated for operationally hot engines, during cold start and fuel evaporation. The model also includes the emission effect of catalyst wear. Input data for vehicle stock and mileage is obtained from the Danish Road Directorate, and is grouped according to average fuel consumption and emission behaviour. For each group the emissions are estimated by combining vehicle and annual mileage numbers with hot emission factors, cold:hot ratios and evaporation factors (Tier 2 approach).

For air traffic the 2001 estimates are made on a city-pair level, using flight data from the Danish Civil Aviation Agency (CAA-DK) and LTO and distance related emission factors from the CORINAIR guidelines (Tier 2 approach). For previous years the background data consists of LTO/aircraft type statistics from Copenhagen Airport and total LTO numbers from CAA-DK. With appropriate assumptions a consistent time series of emissions is produced back to 1990 using also the findings from a Danish city-pair emission inventory in 1998.

Off road working machines and equipment are grouped in the following sectors: Inland waterways, agriculture, forestry, industry and household and gardening. In general the emissions are calculated by combining information on the number of different machine types and their respective load factors, engine sizes, annual working hours and emission factors (Tier 2 approach).

Recalculations of the aviation emissions are made using the improved estimation method and by including the flights for Greenland and the Faroe Islands under domestic aviation as prescribed by the UNFCCC reporting guidelines. Previous year's estimates (1990-2000) are updated in accordance with this flight classification. For military and railways updated 1990-2001 emission factors are used for gasoline and diesel derived from the road transport inventory results.

For transport the CO_2 emissions are determined with the most accuracy, while the levels of the CH_4 and N_2O estimates are significantly more uncertain. The overall uncertainties in 2001 for CO_2, CH_4 and N_2O are around 4, 32 and 59 %, while the 1990-2001 emission trend uncertainties for the same three components are 4, 4 and 154 %, respectively.

An overall quality assurance and control of the inventory of transport emissions is achieved when operating the top-down approach (Tier 1) for road transport, air-traffic and off road working machines and equipment in parallel with the detailed Tier 2 inventory methodology. Accordingly the fuel use and emission results are adjusted in a fuel balance ensuring that all statistical fuel sold is accounted for sector-wise in the calculations. Furthermore all time series of emissions in the CRF and SNAP source categories are examined and considerate changes are checked and explained. A comparison is also made to the previous year's estimate, and any major changes are

verified. As a last point a data transfer control is made from SNAP source categories to aggregated CRF source categories.

Please refer to appendix 6 for further information about emission inventories for transport.

The specific methodologies regarding Industrial Processes

Energy consumption associated with industrial processes and the emissions thereof is included in the Energy sector of the inventory. This is due to the overall use of energy balance statistics for the inventory.

Mineral Products: Cement. CRF Table 2(I).A-G Sectoral Background Data for Industrial processes. A.1.

There is only one producer of cement in Denmark, Aalborg Portland ltd. The activity data for the production of cement and the emission factor are obtained from the corporation as accounted for and published in the "Green National Accounts" (In Danish: “Grønne regnskaber”) which the corporation works out according to obligations in Danish law. These accounts are subject to audit. The emission factor is produced as a result of weighting of emission factors resulting from the production of Low alkali cement, rapid cement and basis cement.

Mineral Products: Lime and bricks. CRF Table 2(I).A-G Sectoral Background Data for Industrial processes. A.2.

The reference for the activity data for production of lime and bricks are the production statistics for manufacturing industries published by Statistics Denmark. The productions of lime and yellow bricks imply CO_2 emissions.

For the calculation of these emissions and the emission factors used please refer to Appendix 7.

Chemical Industry. Ammonia production CRF Table 2(I).A-G Sectoral Background Data for Industrial processes. B.1.

Se section "Further improvement and response to previous review" below.

Chemical Industry. Nitric Acid production: CRF Table 2(I).A-G Sectoral Background Data for Industrial processes. B.2.

There is one producer. The data so far in the inventory relies on information from the producer. The producer only reports NOx emissions associated with the production. The producer reports these emissions as measured emissions. For some of the years the amount of Nitric Acid produced was not reported together with the report on measured NOx emissions.

Chemical Industry. Sulphuric Acid production: CRF Table 2(I).A-G Sectoral Background Data for Industrial processes. B.5 Others.

There has been one producer reporting direct measured emissions of SO_2 only. The production has stopped.

F-gases: CRF Table 2(II) Sectoral Background Data for Industrial processes - Emissions of HFCs, PFCs and SF_6

The inventory on the F-gases: HFCs, PFCs and SF6 are based on work carried out by the Danish Company COWIconsult. Their yearly report (Danish Environmental

Protection Agency, 2003) will, for the first time, be available in English as documentation of inventory data up to year 2001 (http://www.mst.dk/udgiv/publikationer/2003/87-7972-456-6/pdf/87-7972-457-4.pdf). The methodology used has been revised for the inventory 2001 to better reflect the Tier 2 methodology of the IPCC guidelines. For most of the substances the inventory reported with this NIR reflects the new methods for all years. The substances that have not been updated according to the new method will be updated with the next NIR, the changes to come will only be of minor importance to the data. For the full information on data, methodology, etc reference is made to the report, The Danish Environmental Agency, 2003. In Appendix 7 a summary is given.

Further improvement and response to previous review.
In general - for the time being - the manpower resources on the industrial part of the inventory are strengthened.

The review has pointed out that Ammonia production was not reported. A process has been started to produce a consistent time series for Ammonia production back to year 1990.

The full implementation of the new methods used for F-gases will be used in the next inventory submission.

The specific methodologies regarding Solvents (3)
The emission inventory for 'Solvents' is based on reports from Danish Industries (DI) on emissions from various industrial sectors. The reporting is not annual and linear interpolation is used between the reporting years. It is important to notice that not all the use of solvents are included in this agreement and no activity data has been available. Efforts are still to be made in the future inventory work to improve the emission estimates.

Please refer to appendix 8 for further information about emission inventories for solvents.

The specific methodologies regarding Agriculture *CRF Table 4 Sectoral Report for Agriculture and Table 4.A, 4.B(a), 4.B(b) and 4.D Sectoral Background Data for Agriculture.*
The calculation of emission from the agricultural sector is based on methods described in the IPCC Guideline (IPCC, 1996), the Good Practice Guidance (IPCC, 2000) and Andersen (1999). The numbers of animals, data for land use and crop yield are taken from the Agricultural Statistic (Statistics Denmark). Data to estimate the CH_4 emissions are mainly collected by the Danish Institute of Agricultural Sciences. Emission of N_2O is closely related to nitrogen balance. This means that a series of the data applied in relation to the inventory of ammonia emissions simultaneously are being applied in the calculation of N_2O emissions. In Denmark a model based system is applied for calculation of the emission of ammonia (Hutchings et al., 2001).

The uncertainties for assessment of emissions from enteric fermentation, manure management and agricultural soil have been estimated. The uncertainties are highest for the emission factors and particularly for the N_2O emission. To ensure the data quality activity data and data for estimation of emission factors are collected and discussed in corporation with specialists and researchers at different institutes and

research sections. It means that the emission inventory will be evaluated continuously according to the latest knowledge and information.

Presently a thorough investigation of the method for the emission inventory of greenhouse gases from the agricultural sector is being performed. Based on this investigation change in the data on activity and the emission factors for the whole period from 1990 to 2001 might occur. The revision will be included in the emission inventory 2002.

A more detail description of the methods of emission inventory for greenhouse gases from the agricultural sector is given in appendix 9.

The specific methodologies regarding Forestry *CRF Table 5 Sectoral Report for Land-Use Change and Forestry and Table 5.A Sectoral Background Data for Land-Use Change and Forestry.*
This submission of inventories 1990-2001 represents new data on removals by sinks. The basis is a new Forestry Census 2000, which updates for the first time since 1990 data on biomass stocks and on annual increment. Furthermore, data on Carbon stocks is now available, as they are included in the Forestry Census of 2000. This has led to a slight revision of methodology, including the use of new biomass expansion factors and use of tree specific wood densities.

The revised methodology and use of the new Forestry Census lead to higher estimates of standing stock of wood and higher gross and net increments in the forests. This again results in considerable higher estimates of Carbon sequestration in forests planted before 1990 than previously reported.

Further, the new Forestry Census 2000 has provided new data used for recalculation of estimates of forest sinks due to afforestation since 1990. These new data includes a reduction in afforested area per year and a change in distribution of tree species on the afforested areas. This leads to reduced CO_2 sequestration from forests planted after 1990.

The data on LULUCF reported in the CRF Tables in this NIR reflects the new Forestry Census and the new methodology. As regards background Tables only Table 5A for the year 2001 has been filled in and only for data on forests planted before 1990. However, further information on the new Forestry Census, the new methodology, the removal of sinks data and the background data for the new estimates and the recalculation can be found in the Appendix 10 in this report.

The specific methodologies regarding Waste *CRF Table 6 Sectoral Report for Waste Table 6.A Sectoral Background Data for Waste*
The data used for the amounts of Municipal Solid Waste deposited at Solid Waste Disposal Sites is according to official registration performed by the Danish Environmental Protection Agency. (The ISAG database http://www.mst.dk/homepage/). CH_4 emissions from Solid Waste Disposal Sites are based on a model suited Danish conditions. The model is based on the IPCC Tier approach. The model is described in Danish Energy Agency (2001). In Appendix 10 a summary and background data are given. All waste incinerated is used for energy and heat production. This production is included in energy statistics, hence emissions are included in Table 1A.1a Public Electricity and Heat Production 6 B. The Danish

wastewater handling systems treat the wastewater aerobically. They are therefore considered to produce CH_4 emissions of only minor and negligible importance.

Please refer to appendix 11 for further information about emission inventories for waste.

The specific methodologies regarding adjustments
In the UNFCCC REPORTING GUIDELINES ON ANNUAL INVENTORIES parties are encouraged to give information on application of adjustments as it is considered to be important information in relation to the monitoring of emission and removal trends and the performance of national policies and measures.

In Appendix 2 the application of adjustments is reported separately. The methodologies followed are described in Appendix 13.

The specific methodologies regarding key sources
A key source analysis for year 2001 has been carried out in accordance with the Good Practice Guidance, Penman et al. (2000). The categorisation used results in a total of 59 sources, of which 14 are identified as key sources due to both level and trend. The Energy Sector contributes with 7 key sources of which CO_2 from Steam Coal is the most contributing category with 24.0% of the National total, the category CO_2 emissions from Mobile Combustion, Roadx Transportation is the second most contributing with 16.2% and CO_2 from Natural gas is the third largest contributor with 16.0%. In the Agriculture Sector there are 3 key sources, which are among the 7 most contributing sources. These 3 sources are direct N_2O emissions from Agriculture Soils, indirect N_2O emissions from Nitrogen used in Agriculture and CH_4 from Enteric Fermentation, contributing 6.5, 4.3 and 4.0% respectively to the National total in 2001. The categorisation used is included in Appendix 12.

(d) References regarding methodologies, emission factors and activity data
The documentation on the CORINAIR methodology can be obtained from the "Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook, Second edition (Richardson, S. (Ed), 1999). The documentation on the COPERT III is given in Ntziachristos et al. (2000).

Regarding removals by sinks the methodology the reference is the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories.

Regarding activity data the references are national statistics e.g. on energy and agriculture as well as data on production (e.g. cement) and consumption (e.g. F-gases) obtained directly from producers and consumers.

The emission factors are partly based on the Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook mentioned above and the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, and partly on Danish legislation and measurements on Danish plants. In a few cases data on the emissions derives directly from measurements instead of calculations from emission factors. In appendices 4-12 references regarding methodologies, emission factors and activity data related to the sectors are given.

(e) Assumptions underlying the emission and removal estimates
The assumptions underlying the emission and removal estimates are in general related to the emission factors chosen and activity data used. Information on the emission factors chosen and activity data used is given in the appendices and in the CRF.

(f) Feedstocks and bunkers
Feedstocks
The Danish energy statistics includes non-energy use of three fuels: White spirit, lubricants and bitumen. These fuels have not been implemented in the Danish national approach. The fuels are however included in the reference approach. The emissions from some of the products produced on the basis of feedstock are taken into account in the national approach, e.g. emissions from the use of solvents and from incineration of plastic in municipal waste (Illerup et al., 2000).

Bunkers
In the Danish emission inventories presented in CRF, the distinction between domestic and international emissions from aviation and navigation is made in accordance with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. In principle this means that fuel sold (and associated emissions) for flights/sea transportation starting from a seaport/airport in the Kingdom of Denmark, with destinations inside or outside the Kingdom of Denmark, are regarded as domestic or international, respectively.

For aviation the emissions associated with flights inside the Kingdom of Denmark are counted as domestic. The flights from Denmark to Greenland and the Faroe Islands are classified as domestic flights in the inventory background data, and in the real world almost no fuel is bunkered in Greenland/Faroe Islands by other flights than those going to Denmark.

The domestic/international fuel split (and associated emissions) for navigation is not determined with the same precision as for aviation. Therfore no special effort has been made to investigate how the fuel quantities sold in Denmark and on the Faroe Islands are classified for vessels going to Greenland/Faroe Islands. For Greenland all marine fuel sales are treated as domestic. However, it is considered that this uncertain fuel amount only contribute with a small part of the total fuel sold for navigation purposes in the Kingdom of Denmark.

(g) Recalculations
Since the submission of Denmark's National Inventory Report for 2000 (Illerup et al. 2002) to the UNFCCC the following main changes to the Danish emission inventories have been carried out:

Energy:
1990-2001. The emission factors for CH_4 have been updated for stationary fuel combustion activities.

1990-2001. The emissions of CH_4 and NMVOC from natural gas distribution networks and pipelines have been updated according to Danish conditions.

Transport:
Military and railways
1990-2001. New emission factors for gasoline have been derived from the new road traffic estimates.

Air traffic
1990-2001. The emission estimates are updated in consistence with the new aircraft emission calculation method. The flights for Greenland and the Faroe Islands are included under domestic aviation.

Industry:
1990-2001. Consumption of Halocarbons and SF6. A revised methodology has been introduced.

Agriculture:
1990-2001. CH_4-emissions from Enteric fermentation and manure management have been changed since horses on small farms and on riding schools have been included.

Forestry:
1990-2001. Changes in forest and other woody biomass stocks. The total CO_2 removals have not been changed since the December 2002 submission, but the total has been split into uptake from forest planted before 1990 and afforestation since 1990. Table 5.A for year 2001 has been filled out accordingly.

(h) Uncertainties
A first-attempt uncertainty estimate based on the Tier 1 methodology in IPCC Good Practice Guidance (GPG) (IPCC 2000) have been performed this year. Uncertainty estimates for stationary combustion plants, mobile combustion, agriculture and fugitive emissions from fuels are included this year. The aim is to include an increasing part of the emission sources during the next years. The sources included in the uncertainty estimate cover 93% of the total Danish greenhouse gas emission (CO_2 eq.).

The aggregation levels of the uncertainty estimates follow the key source aggregation level as recommended in GPG. The uncertainty of the activity rates and of the emission factors is shown in appendix 14. In general uncertainties refer to GPG. Detailed references are stated in appendix 4-11. The calculation sheet is shown in appendix 14.

The estimated uncertainties of CO_2, CH_4, N_2O are shown in Table 1. The uncertainty of the total greenhouse gas emission is also shown. Note that the uncertainty estimate does not take into account the uncertainty of the GWP factors.

Table 1 Uncertainty of inventories

1)	Uncertainty [%]	Uncertainty in trend [%]
CO_2	2,1	1,7
CH_4	15	6
N_2O	431	29
GHG [2)]	58	17

1. The uncertainty estimates includes stationary combustion plants, mobile combustion, agriculture and fugitive emissions from fuels
2. GWP: CO_2: 1, CH_4: 21, N_2O: 310

The uncertainty on N_2O from agricultural soils is the predominant source of uncertainty for the Danish inventory. The uncertainty from combustion in stationary and mobile units is 8% and the trend uncertainty is 1,8%.

(i) Information on quality assurance/quality control (QA/QC)
In the preparation of Denmark's annual emission inventory several quality control (QC) procedures are carried out. The Danish QC includes:

- Check of time series of the CRF and SNAP source categories as they are found in the CORINAIR databases. Considerable trends and changes are checked and explained.
- Comparison to inventory of the previous year on the level of the categories of the CRF as well as on SNAP source categories. Any major changes are checked, verified, etc.
- Total emissions when aggregated to CRF source categories are compared to totals based on SNAP source categories (control of data transfer).
- A manual log table has been introduced in the emission databases to collect information about recalculations

Apart from the UNFCCC's In-Depth-Reviews, Quality Assurance (QA) with independent review of the inventories has not yet been carried out. The IPCC has developed guidance on good practice. This work includes good practice guidance on QA/QC. Future work to improve the Danish emission inventories will include further elaboration of how formal QA/QC procedures could be implemented. A formal QA/QC plan has not yet been developed.

(j) Changes with respect to previous reporting
As mentioned under (g) on recalculations several changes to the Danish emission inventories have been made. In Table 8 of the CRF for the years 1990-2000 the result of these changes as compared to the previous report (Illerup et al., 2002) is shown.

(k) Reviews of Denmark's National Inventory reports submitted 2001 and 2002
The Danish National Inventory Report published in year 2001 (NIR 2001) was subject to a desk review. The NIR 2001 had been worked out on a basis where methodologies described in previous NIRs and not being changed by the submission in 2001 were not given special attention in the NIR 2001. Therefore when a draft of the report of this desk review was available for comments in March 2002, Denmark made extended comments to the desk review team.

However, the final report from the desk review of the NIR 2001 was available after the due time, April 15 2002, where we had to finalise the NIR 2002 report. The considerations of the review team as reflected in the draft report were an improved bases for the work on the NIR 2002. However, the final report and especially how the Danish comments to the draft report had been reflected in the final report could not be taken into account for the NIR 2002.

The final report of the desk review of the NIR 2001 has now been carefully considered for the work on this report.

The NIR 2002 is subject to a centralised review. The review team has had valuable questions to which Denmark has responded. This communication has been of impor-

tance to the work on this NIR. However, no draft report from the centralised review team is yet available. Thus the considerations, suggestions, etc of the reviewers in their report on the NIR 2002 was not the basis for the work on this NIR 2003.

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Appendix 1.1

Annual emission inventories 1990-2001

CRF tables for Denmark

NB '.' (Full stop) is separator for thousands and ',' (comma) is separator for decimals.

Annual emission inventories

1990

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**51.529,55**	**13,01**	**1,88**	**271,44**	**715,40**	**118,38**	**179,91**
A. Fuel Combustion Activities (Sectoral Approach)	**51.289,54**	**8,58**	**1,88**	**270,14**	**679,80**	**110,05**	**179,91**
1. Energy Industries	**26.202,33**	**1,19**	**0,89**	**95,48**	**9,01**	**1,16**	**133,11**
a. Public Electricity and Heat Production	24.785,21	1,10	0,85	91,72	8,51	1,09	125,42
b. Petroleum Refining	897,47	0,03	0,03	1,59	0,25	0,06	7,69
c. Manufacture of Solid Fuels and Other Energy Industries	519,64	0,06	0,01	2,17	0,25	0,02	0,00
2. Manufacturing Industries and Construction	**5.605,10**	**0,83**	**0,17**	**21,17**	**14,30**	**4,08**	**21,19**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	5.605,10	0,83	0,17	21,17	14,30	4,08	21,19
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				21,17	14,30	4,08	21,19
3. Transport	**10.404,27**	**2,71**	**0,47**	**113,00**	**478,93**	**86,42**	**11,66**
a. Civil Aviation	216,45	0,01	0,01	1,01	1,07	0,18	0,01
b. Road Transportation	9.350,91	2,62	0,42	100,12	467,74	80,77	5,77
c. Railways	298,13	0,02	0,01	2,79	0,54	0,19	0,38
d. Navigation	538,78	0,06	0,03	9,09	9,57	5,27	5,51
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.958,84**	**3,85**	**0,34**	**39,99**	**177,13**	**18,33**	**13,93**
a. Commercial/Institutional	1.403,00	0,13	0,04	1,29	0,84	0,19	1,81
b. Residential	5.122,00	2,80	0,18	4,88	152,97	11,25	6,30
c. Agriculture/Forestry/Fisheries	2.433,84	0,91	0,12	33,83	23,32	6,88	5,82
5. Other *(please specify)* [1]	**119,01**	**0,01**	**0,00**	**0,49**	**0,42**	**0,06**	**0,02**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	119,01	0,01	0,00	0,49	0,42	0,06	0,02
Emissions from military combustion of fuels	119,01	0,01	0,00	0,49	0,42	0,06	0,02
B. Fugitive Emissions from Fuels	**240,00**	**4,43**	**0,00**	**1,30**	**35,61**	**8,34**	**0,00**
1. Solid Fuels	**0,00**	**3,45**	**0,00**	**0,00**	**34,76**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,45	0,00	0,00	34,76	0,00	0,00
Storage of solid fluid					34,76		
2. Oil and Natural Gas	**240,00**	**0,98**	**0,00**	**1,30**	**0,84**	**8,34**	**0,00**
a. Oil	0,00	0,04				7,89	
b. Natural Gas	0,00	0,27				0,08	
c. Venting and Flaring	240,00	0,68	0,00	1,30	0,84	0,37	0,00
Venting	0,00	0,00					
Flaring	240,00	0,68	0,00	1,30	0,84	0,37	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**4.857,41**	**0,10**	**0,25**	**91,78**	**8,63**	**2,57**	**54,53**
Aviation	1.762,34	0,03	0,06	7,14	1,43	0,31	0,06
Marine	3.095,07	0,07	0,19	84,63	7,20	2,26	54,47
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**4.611,45**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**679.599,25**	NCV				**51.289,54**	**8,58**	**1,88**
Liquid Fuels	301.341,55	NCV	74,07	11,25	2,82	22.320,57	3,39	0,85
Solid Fuels	254.836,51	NCV	94,98	2,79	3,00	24.205,03	0,71	0,76
Gaseous Fuels	76.099,39	NCV	56,90	9,03	1,00	4.330,05	0,69	0,08
Biomass	46.862,30	NCV	98,40	79,77	3,97 [3]	4.611,45	3,74	0,19
Other Fuels	459,51	NCV	944,25	105,86	0,66	433,89	0,05	0,00
1.A.1. Energy Industries	**314.458,77**	NCV				**26.202,33**	**1,19**	**0,89**
Liquid Fuels	27.582,24	NCV	66,97	2,37	2,00	1.847,11	0,07	0,06
Solid Fuels	236.441,01	NCV	94,98	1,84	3,00	22.457,46	0,44	0,71
Gaseous Fuels	26.707,63	NCV	56,90	12,57	1,00	1.519,66	0,34	0,03
Biomass	23.727,90	NCV	95,62	14,70	3,98 [3]	2.268,81	0,35	0,09
Other Fuels	0,00	NCV	0,00	0,00	0,00	378,11	0,00	0,00
a. Public Electricity and Heat Production	290.038,87	NCV				24.785,21	1,10	0,85
Liquid Fuels	12.294,94	NCV	77,24	2,73	2,00	949,64	0,03	0,02
Solid Fuels	236.441,01	NCV	94,98	1,84	3,00	22.457,46	0,44	0,71
Gaseous Fuels	17.575,03	NCV	56,90	15,87	1,00	1.000,01	0,28	0,02
Biomass	23.727,90	NCV	95,62	14,70	3,98 [3]	2.268,81	0,35	0,09
Other Fuels	0,00	NCV	0,00	0,00	0,00	378,11	0,00	0,00
b. Petroleum Refining	15.287,30	NCV				897,47	0,03	0,03
Liquid Fuels	15.287,30	NCV	58,71	2,09	2,00	897,47	0,03	0,03
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	9.132,60	NCV				519,64	0,06	0,01
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	9.132,60	NCV	56,90	6,22	1,00	519,64	0,06	0,01
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**80.918,36**	NCV					**5.605,10**	**0,83**	**0,17**
Liquid Fuels	36.666,30	NCV	77,54	7,62	2,22		2.843,25	0,28	0,08
Solid Fuels	15.042,90	NCV	95,00	15,00	3,00		1.429,08	0,23	0,05
Gaseous Fuels	23.423,16	NCV	56,90	6,12	1,00		1.332,78	0,14	0,02
Biomass	5.786,00	NCV	101,97	31,95	4,00	[3]	589,99	0,18	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	80.918,36	NCV					5.605,10	0,83	0,17
Liquid Fuels	36.666,30	NCV	77,54	7,62	2,22		2.843,25	0,28	0,08
Solid Fuels	15.042,90	NCV	95,00	15,00	3,00		1.429,08	0,23	0,05
Gaseous Fuels	23.423,16	NCV	56,90	6,12	1,00		1.332,78	0,14	0,02
Biomass	5.786,00	NCV	101,97	31,95	4,00	[3]	589,99	0,18	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**141.402,95**	NCV					**10.404,27**	**2,71**	**0,47**
Gasoline	70.319,85	NCV	72,96	32,31	2,28		5.130,46	2,27	0,16
Diesel	70.623,59	NCV	74,20	5,46	4,42		5.240,36	0,39	0,31
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]		0,00	0,00	0,00
Other Fuels	459,51	NCV	72,79	105,86	0,66		33,45	0,05	0,00
a. Civil Aviation	3.004,74	NCV					216,45	0,01	0,01
Aviation Gasoline	113,59	NCV	73,00	21,90	2,00		8,29	0,00	0,00
Jet Kerosene	2.891,15	NCV	72,00	1,28	3,25		208,16	0,00	0,01
b. Road Transportation	127.274,76	NCV					9.350,91	2,62	0,42
Gasoline	67.315,12	NCV	73,00	33,66	2,24		4.914,00	2,27	0,15
Diesel Oil	59.947,30	NCV	74,00	5,90	4,54		4.436,10	0,35	0,27
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels *(please specify)*	12,34	NCV					0,80	0,00	0,00
	12,34	NCV	65,00	24,87	5,67		0,80	0,00	0,00
c. Railways	4.029,03	NCV					298,13	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.029,03	NCV	74,00	4,90	2,04		298,13	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	7.094,43	NCV					538,78	0,06	0,03
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	3.559,81	NCV	78,00	1,76	4,89		277,66	0,01	0,02
Gas/Diesel Oil	3.087,45	NCV	74,00	1,95	4,52		228,47	0,01	0,01
Other Fuels *(please specify)*	447,17	NCV					32,64	0,05	0,00
	447,17	NCV	73,00	108,10	0,52		32,64	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**142.819,17**	NCV					**8.958,84**	**3,85**	**0,34**
Liquid Fuels	96.149,57	NCV	74,26	4,00	2,47		7.140,38	0,38	0,24
Solid Fuels	3.352,60	NCV	95,00	15,00	3,00		318,50	0,05	0,01
Gaseous Fuels	25.968,60	NCV	56,90	8,02	1,00		1.477,61	0,21	0,03
Biomass	17.348,40	NCV	101,03	184,71	3,95 [3]		1.752,66	3,20	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		22,34	0,00	0,00
a. Commercial/Institutional	21.618,80	NCV					1.403,00	0,13	0,04
Liquid Fuels	13.579,30	NCV	74,30	1,91	2,00		1.009,00	0,03	0,03
Solid Fuels	88,60	NCV	95,00	15,00	3,00		8,42	0,00	0,00
Gaseous Fuels	6.383,80	NCV	56,90	8,33	1,00		363,24	0,05	0,01
Biomass	1.567,10	NCV	91,23	30,74	3,43 [3]		142,96	0,05	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		22,34	0,00	0,00
b. Residential	85.417,84	NCV					5.122,00	2,80	0,18
Liquid Fuels	55.006,74	NCV	73,87	4,14	2,01		4.063,21	0,23	0,11
Solid Fuels	746,20	NCV	95,00	15,00	3,00		70,89	0,01	0,00
Gaseous Fuels	17.362,10	NCV	56,90	6,00	1,00		987,90	0,10	0,02
Biomass	12.302,80	NCV	102,00	200,00	4,00 [3]		1.254,89	2,46	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	35.782,52	NCV					2.433,84	0,91	0,12
Liquid Fuels	27.563,52	NCV	75,03	4,73	3,64		2.068,17	0,13	0,10
Solid Fuels	2.517,80	NCV	95,00	15,00	3,00		239,19	0,04	0,01
Gaseous Fuels	2.222,70	NCV	56,90	22,91	1,00		126,47	0,05	0,00
Biomass	3.478,50	NCV	102,00	200,00	4,00 [3]		354,81	0,70	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**119,01**	**0,01**	**0,00**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		119,01	0,01	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	256.709,00	174.345,00	118.257,00		1.044,00	311.753,00	1,00	NCV	311.753,00	20,00	6.235,06		6.235,06	1,00	22.861,89
		Orimulsion	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	22,00	0,00		0,00	1,00	0,00
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		28.505,00	19.448,00	6,00	-3.498,00	12.549,00	1,00	NCV	12.549,00	18,90	237,18		237,18	1,00	869,65
		Jet Kerosene	TJ		22.449,00	344,00	24.783,00	1.675,00	-4.353,00	1,00	NCV	-4.353,00	19,50	-84,88		-84,88	1,00	-311,24
		Other Kerosene	TJ		1.040,00	1.011,00	0,00	-59,00	88,00	1,00	NCV	88,00	19,60	1,72		1,72	1,00	6,32
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		70.302,00	37.066,00	11.633,00	-3.285,00	24.888,00	1,00	NCV	24.888,00	20,20	502,74	0,00	502,74	1,00	1.843,37
		Residual Fuel Oil	TJ		8.839,00	44.123,00	28.543,00	-7.022,00	-56.805,00	1,00	NCV	-56.805,00	21,10	-1.198,59		-1.198,59	1,00	-4.394,81
		LPG	TJ		773,00	3.025,00		-119,00	-2.133,00	1,00	NCV	-2.133,00	17,20	-36,69	0,00	-36,69	1,00	-134,52
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.051,00	11.157,00		-38,00	-10.068,00	1,00	NCV	-10.068,00	20,00	-201,36	15,29	-216,65	1,00	-794,37
		Bitumen	TJ		7.932,00	399,00		49,00	7.484,00	1,00	NCV	7.484,00	22,00	164,65	189,49	-24,84	1,00	-91,07
		Lubricants	TJ		3.461,00	466,00	101,00	105,00	2.789,00	1,00	NCV	2.789,00	20,00	55,78	31,10	24,68	1,00	90,49
		Petroleum Coke	TJ		4.514,00	1.228,00		-973,00	4.259,00	1,00	NCV	4.259,00	27,50	117,12		117,12	1,00	429,45
		Refinery Feedstocks	TJ		28.050,00	372,00		-282,00	27.960,00	1,00	NCV	27.960,00	20,00	559,20		559,20	1,00	2.050,40
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												318.411,00		6.351,93	235,87	6.116,06		22.425,56
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	260.316,00	1.415,00	0,00	5.408,00	253.493,00	1,00	NCV	253.493,00	25,80	6.540,12		6.540,12	1,00	23.980,44
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	129,00	0,00		20,00	109,00	1,00	NCV	109,00	27,60	3,01		3,01	1,00	11,03
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.305,00	3,00		24,00	1.278,00	1,00	NCV	1.278,00	29,50	37,70		37,70	1,00	138,24
Solid Fuel Totals												254.880,00		6.580,83	0,00	6.580,83		24.129,71
Gaseous Fossil		Natural Gas (Dry)	TJ	115.967,00	0,00	38.855,00		1.014,00	76.098,00	1,00	NCV	76.098,00	15,30	1.164,30	0,00	1.164,30	1,00	4.269,10
Total												**649.389,00**		**14.097,06**	**235,87**	**13.861,19**		**50.824,36**
Biomass total												47.723,00		1.414,21	0,00	1.414,21		5.185,45
		Solid Biomass	TJ	46.227,00	0,00	0,00		0,00	46.227,00	1,00	NCV	46.227,00	29,90	1.382,19		1.382,19	1,00	5.068,02
		Liquid Biomass	TJ	744,00	0,00	0,00		0,00	744,00	1,00	NCV	744,00	20,00	14,88		14,88	1,00	54,56
		Gas Biomass	TJ	752,00	0,00	0,00		0,00	752,00	1,00	NCV	752,00	22,80	17,15		17,15	1,00	62,87

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	318,41	22.425,56	301,34	22.320,57	5,66	0,47
Solid Fuels (excluding international bunkers)	254,88	24.129,71	254,84	24.205,03	0,02	-0,31
Gaseous Fuels	76,10	4.269,10	76,10	4.330,05	0,00	-1,41
Other [3]	-12,74	400,45	0,46	433,89	-2.872,95	-7,71
Total [3]	**636,65**	**51.224,81**	**632,74**	**51.289,54**	**0,62**	**-0,13**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.
[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).
[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future

CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

e inventories will be considered.

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.019,00	0,75	20,00	15,29
Lubricants	3.110,00	0,50	20,00	31,10
Bitumen	8.613,00	1,00	22,00	189,49
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
56,05	
114,03	
694,78	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,45	0,00
	10,26	0,34	0,00	3,45	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,04**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		7.263.000,00	0,00	0,01			0,04	
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	1.507.726	0,00	0,00				
vi. Other		Mg Crude	0	0,00	0,00				
1. B. 2. b. Natural Gas							**0,00**	**0,27**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	0	0,00	0,00				
ii. Transmission	*Gas produced and stock change*	Mm3 gas	4.313	0,00	61,59			0,27	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**240,00**	**0,68**	**0,00**
i. Oil	*(e.g. PJ gas consumption)*	GJ	0	0,00	0,00	0,00			
ii. Gas	*(e.g. PJ gas consumption)*	GJ	4.218.005	56,90	0,16	0,00	240,00	0,68	0,00
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**40.276,93**				**3.095,07**	**0,07**	**0,19**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	11.632,67	74,00	1,69	4,68	860,82	0,02	0,05
Residual Fuel Oil	28.644,25	78,00	1,76	4,89	2.234,25	0,05	0,14
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**24.476,45**				**1.762,34**	**0,03**	**0,06**
Jet Kerosene	24.440,18	72,00	1,15	2,45	1.759,69	0,03	0,06
Gasoline	36,27	73,00	21,89	2,01	2,65	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	14,98	85,02
Aviation	10,93	89,07

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.005,50**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**
A. Mineral Products	**1.005,50**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	882,89												
2. Lime Production	122,61												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,81			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,33
													0,33
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,00**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00												
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				0,00	0,00	0,00	0,00		0,00				
2. Foam Blowing				0,00	0,00		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,00	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,00	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1990

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.005,50**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	1.619,98	0,55			882,89					
2. Lime Production	Production of Lime and Brigs	418,05	0,29			122,61					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		400,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		100,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1990

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		3,90	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**1,80**
C. Metal Production															**0,00**	**0,00**							**1,30**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							1,30
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,50**
1. Refrigeration and Air Conditioning Equipment																							
2. Foam Blowing																							
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,50
																							0,50
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**43,02**
C. Metal Production															0,00	0,00						0,00	31,07
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	11,95
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	11,95
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

1990

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				1,30	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	1,30	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF_6
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
(e.g. HFC-32)									
(e.g. HFC-125)									
(e.g. HFC-134a)									
(e.g. HFC-152a)									
(e.g. HFC-143a)									
Commercial Refrigeration									
Transport Refrigeration									
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
2 Foam Blowing									
Hard Foam									
Soft Foam									

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1990

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,20	9,40	0,00	5,00	0,50	5,00	0,06	0,00	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	0,00	0,00	0,00	15,00	1,00	65,00	0,00	0,00	0,00
SF6 (laboratories)	0,40	0,00	0,00	100,00	0,00	0,00	0,40	0,00	0,00
SF6 (running shoes)	0,00	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

For HFCs and PFCs no activities are registered for years 1990 and 1991.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**123,58**	**0,00**	**42,30**
A. Paint Application	**79,18**		**25,40**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,65**
D. Other *(please specify)*	44,41	0,00	14,25
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	44,41		14,25

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**194,70**	**33,09**	**0,00**	**0,00**	**1,08**
A. Enteric Fermentation	**151,84**				
1. Cattle	133,90				
Dairy Cattle	78,32				
Non-Dairy Cattle	55,58				
2. Buffalo	NO				
3. Sheep	1,27				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,43				
7. Mules and Asses	NO				
8. Swine	14,25				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**42,86**	**1,49**			**0,00**
1. Cattle	18,52				
Dairy Cattle	16,14				
Non-Dairy Cattle	2,38				
2. Buffalo	NO				
3. Sheep	0,07				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,15				
7. Mules and Asses	NO				
8. Swine	23,47				
9. Poultry	0,65				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,21			NE
12. Solid Storage and Dry Lot		1,28			NE
13. Other *(please specify)*		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)*	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**31,60**			**1,08**
1. Direct Soil Emissions	NE	20,03			1,08
2. Animal Production	NE	1,27			NE
3. Indirect Emissions	NE	10,30			NE
4. Other *(please specify)*	0,00	0,00			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)*	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	753	264,7	6,00	104,00
Non-Dairy Cattle	1.486	96,0	6,00	37,40
2. Buffalo				0,00
3. Sheep	159			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	135			18,00
7. Mules and Asses				0,00
8. Swine	9.497			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals [b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation [c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	753	100,0			550,0	2.115,0	0,2	21,43
Non-Dairy Cattle	1.486	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	159	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	135	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	9.497	100,0			76,0	110,0	0,5	2,47
9. Poultry	31.129	100,0			2,0	9,0	0,5	0,02

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1990

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	753								Anaerobic lagoon	0,000
Dairy Cattle	1.486								Liquid system	0,000
Sheep	235								Solid storage and dry lot	0,000
Swine	14.935								Other	0,000
Poultry	31.129									
Other *(please specify)*										
Total per AWMS [2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1990

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Agricultural Soils[(1)]

(Sheet 1 of 1)

Denmark

1990

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**20,03**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	400.400.000	(kg N2O-N/kg N)[(2)]	0,012	7,71
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	246.300.000	(kg N2O-N/kg N)[(2)]	0,009	3,47
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	35.700.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,70
Crop Residue	Dry production of other crops (kg dry biomass/yr)	407.700.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	8,01
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**43.400.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	1,27
Indirect Emissions					**10,30**
Atmospheric Deposition	(kg N/yr)	80.748.900	(kg N2O-N/kg N)[(2)]	0,010	1,27
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	230.000.000	(kg N2O-N/kg N)[(2)]	0,025	9,04
Other *(please specify)*					**0,00**
Sewage sludge used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[(2)]	0,000	
Industrial waste used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[(2)]	0,000	
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,15
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,33
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Prescribed Burning of Savannas

(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:

According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.118,00**	**-3.118,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.118,00**	**-3.118,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		0,00	0,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1990

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

	Climate [a]	land-use/ management system [a]	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
Year			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**62,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**62,40**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	62,40		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	3.175,10				0,02	#VALUE!	62,40	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

(1) Actual emissions (after recovery).

(2) CH_4 recovered and flared or utilized.

(3) Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

(a) Specify whether total or urban population is used and the rationale for doing so.

(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

(c) For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**52.658,63**	**-3.118,00**	**270,11**	**34,98**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**272,24**	**715,40**	**171,08**	**180,24**
1. Energy		**51.529,55**		**13,01**	**1,88**							**271,44**	**715,40**	**118,38**	**179,91**
A. Fuel Combustion	Reference Approach [2]	50.824,36													
	Sectoral Approach [2]	51.289,54		8,58	1,88							270,14	679,80	110,05	179,91
1. Energy Industries		26.202,33		1,19	0,89							95,48	9,01	1,16	133,11
2. Manufacturing Industries and Construction		5.605,10		0,83	0,17							21,17	14,30	4,08	21,19
3. Transport		10.404,27		2,71	0,47							113,00	478,93	86,42	11,66
4. Other Sectors		8.958,84		3,85	0,34							39,99	177,13	18,33	13,93
5. Other		119,01		0,01	0,00							0,49	0,42	0,06	0,02
B. Fugitive Emissions from Fuels		240,00		4,43	0,00							1,30	35,61	8,34	0,00
1. Solid Fuels		0,00		3,45	0,00							0,00	34,76	0,00	0,00
2. Oil and Natural Gas		240,00		0,98	0,00							1,30	0,84	8,34	0,00
2. Industrial Processes		**1.005,50**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**
A. Mineral Products		1.005,50		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,81	0,00	0,00	0,33
C. Metal Production		0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production [3]		0,00										0,00	0,00	0,00	0,00
E. Production of Halocarbons and SF_6							0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6						0,00	0,00	0,00	0,00	0,00	0,00				
G. Other		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**123,58**			**0,00**									**42,30**	
4. Agriculture	**0,00**	**0,00**	**194,70**	**33,09**							0,00	0,00	1,08	0,00
A. Enteric Fermentation			151,84											
B. Manure Management			42,86	1,49									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	31,60									1,08	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.118,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.118,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,31	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**62,40**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		62,40									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**4.857,41**		**0,10**	**0,25**							**91,78**	**8,63**	**2,57**	**54,53**
Aviation	1.762,34		0,03	0,06							7,14	1,43	0,31	0,06
Marine	3.095,07		0,07	0,19							84,63	7,20	2,26	54,47
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**4.611,45**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**52.658,63**	**-3.118,00**	**270,11**	**34,98**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**272,24**	**715,40**	**171,08**	**180,24**
1. Energy		**51.529,55**		**13,01**	**1,88**							**271,44**	**715,40**	**118,38**	**179,91**
A. Fuel Combustion	Reference Approach[2]	50.824,36													
	Sectoral Approach[2]	51.289,54		8,58	1,88							270,14	679,80	110,05	179,91
B. Fugitive Emissions from Fuels		240,00		4,43	0,00							1,30	35,61	8,34	0,00
2. Industrial Processes		**1.005,50**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**
3. Solvent and Other Product Use		**123,58**			**0,00**							**0,00**	**0,00**	**42,30**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**194,70**	**33,09**							**0,00**	**0,00**	**1,08**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.118,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
6. Waste		**0,00**		**62,40**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**4.857,41**		**0,10**	**0,25**							**91,78**	**8,63**	**2,57**	**54,53**
Aviation		1.762,34		0,03	0,06							7,14	1,43	0,31	0,06
Marine		3.095,07		0,07	0,19							84,63	7,20	2,26	54,47
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**4.611,45**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**49.540,63**	**5.672,33**	**10.842,62**	**0,00**	**0,00**	**43,02**	**66.098,59**
1. Energy	**51.529,55**	**273,15**	**583,33**				**52.386,02**
A. Fuel Combustion (Sectoral Approach)	51.289,54	180,13	582,02				52.051,69
1. Energy Industries	26.202,33	24,90	274,51				26.501,74
2. Manufacturing Industries and Construction	5.605,10	17,49	53,61				5.676,21
3. Transport	10.404,27	56,83	146,50				10.607,60
4. Other Sectors	8.958,84	80,79	106,14				9.145,77
5. Other	119,01	0,11	1,25				120,37
B. Fugitive Emissions from Fuels	240,00	93,02	1,31				334,33
1. Solid Fuels	0,00	72,36	0,00				72,36
2. Oil and Natural Gas	240,00	20,66	1,31				261,97
2. Industrial Processes	**1.005,50**	**0,00**	**0,00**	**0,00**	**0,00**	**43,02**	**1.048,52**
A. Mineral Products	1.005,50	0,00	0,00				1.005,50
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	31,07	31,07
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				0,00	0,00	11,95	11,95
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**123,58**		**0,00**				**123,58**
4. Agriculture	**0,00**	**4.088,78**	**10.259,29**				**14.348,07**
A. Enteric Fermentation		3.188,72					3.188,72
B. Manure Management		900,06	461,97				1.362,03
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	9.797,32				9.797,32
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.118,00**	**0,00**	**0,00**				**-3.118,00**
6. Waste	**0,00**	**1.310,40**	**0,00**				1.310,40
A. Solid Waste Disposal on Land	0,00	1.310,40					1.310,40
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**4.857,41**	**2,08**	**78,87**				**4.938,36**
Aviation	1.762,34	0,61	18,56				1.781,50
Marine	3.095,07	1,47	60,31				3.156,85
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**4.611,45**						**4.611,45**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.118,00	-3.118,00			-3.118,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.118,00	-3.118,00	0,00	0,00	-3.118,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	69.216,59
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	66.098,59

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark

1990

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[(1)]	Previous submission	Latest submission	Difference[(1)]	Previous submission	Latest submission	Difference[(1)]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**51.719,37**	**49.540,63**	**-4,21**	**5.845,41**	**5.672,33**	**-2,96**	**10.836,58**	**10.842,62**	**0,06**
1. Energy		**51.506,29**	**51.529,55**	**0,05**	**485,05**	**273,15**	**-43,69**	**577,30**	**583,33**	**1,04**
1.A.	Fuel Combustion Activities	51.266,29	51.289,54	0,05	223,27	180,13	-19,32	575,99	582,02	1,05
1.A.1.	Energy Industries	26.202,33	26.202,33	0,00	24,27	24,90	2,62	270,08	274,51	1,64
1.A.2.	Manufacturing Industries and Construction	5.605,10	5.605,10	0,00	15,73	17,49	11,20	53,55	53,61	0,12
1.A.3.	Transport	10.381,01	10.404,27	0,22	56,39	56,83	0,78	149,65	146,50	-2,10
1.A.4.	Other Sectors	8.958,84	8.958,84	0,00	126,78	80,79	-36,27	101,42	106,14	4,65
1.A.5.	Other	119,01	119,01	0,00	0,10	0,11	2,79	1,28	1,25	-2,27
1.B.	Fugitive Emissions from Fuels	240,00	240,00	0,00	261,77	93,02	-64,47	1,31	1,31	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	69,22	72,36	4,54	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	240,00	240,00	0,00	192,56	20,66	-89,27	1,31	1,31	0,00
2. Industrial Processes		**1.005,50**	**1.005,50**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.005,50	1.005,50	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**123,58**	**123,58**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**4.049,96**	**4.088,78**	**0,96**	**10.259,29**	**10.259,29**	**0,00**
4.A.	Enteric Fermentation				3.152,14	3.188,72	1,16			
4.B.	Manure Management				897,82	900,06	0,25	461,97	461,97	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [(2)]			0,00	0,00	0,00	0,00	9.797,32	9.797,32	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-916,00**	**-3.118,00**	**240,39**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-916,00	-3.118,00	240,39						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[(1)] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[(2)] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.310,40**	**1.310,40**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.310,40	1.310,40	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**4.881,03**	**4.857,41**	**-0,48**	**2,24**	**2,08**	**-7,23**	**79,12**	**78,87**	**-0,32**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**4.611,45**	**4.611,45**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**43,02**	**43,02**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	31,07	31,07	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	11,95	11,95	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**0,00**	**0,00**		**0,00**	**0,00**		**40,63**	**40,63**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	68.444,38	66.098,59	-3,43
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	69.360,38	69.216,59	-0,21

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1990
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1990
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1990
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

Annual emission inventories

1991

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**62.082,45**	**15,43**	**2,28**	**318,84**	**755,50**	**120,68**	**238,65**
A. Fuel Combustion Activities (Sectoral Approach)	**61.587,86**	**9,68**	**2,27**	**316,17**	**710,33**	**112,25**	**238,65**
1. Energy Industries	**35.155,19**	**1,70**	**1,17**	**135,11**	**10,08**	**1,48**	**188,21**
a. Public Electricity and Heat Production	33.641,31	1,60	1,13	131,14	9,55	1,40	182,04
b. Petroleum Refining	981,97	0,03	0,03	1,75	0,28	0,06	6,17
c. Manufacture of Solid Fuels and Other Energy Industries	531,91	0,06	0,01	2,22	0,26	0,02	0,00
2. Manufacturing Industries and Construction	**6.011,90**	**0,87**	**0,18**	**22,14**	**14,51**	**4,18**	**22,79**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.011,90	0,87	0,18	22,14	14,51	4,18	22,79
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				22,14	14,51	4,18	22,79
3. Transport	**10.896,40**	**2,98**	**0,55**	**116,10**	**496,28**	**87,21**	**12,97**
a. Civil Aviation	196,42	0,01	0,01	0,91	1,00	0,16	0,01
b. Road Transportation	9.758,91	2,89	0,49	101,51	484,83	81,44	5,91
c. Railways	302,96	0,02	0,01	2,83	0,52	0,19	0,38
d. Navigation	638,10	0,06	0,04	10,86	9,94	5,42	6,67
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**9.237,68**	**4,11**	**0,35**	**40,96**	**188,48**	**19,18**	**14,52**
a. Commercial/Institutional	1.324,27	0,15	0,04	1,23	0,85	0,19	1,59
b. Residential	5.369,91	3,04	0,19	5,20	164,03	12,02	6,98
c. Agriculture/Forestry/Fisheries	2.543,50	0,93	0,13	34,52	23,60	6,97	5,96
5. Other *(please specify)* [1]	**286,69**	**0,02**	**0,01**	**1,86**	**0,98**	**0,20**	**0,16**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	286,69	0,02	0,01	1,86	0,98	0,20	0,16
Emissions from military combustion of fuels	286,69	0,02	0,01	1,86	0,98	0,20	0,16
B. Fugitive Emissions from Fuels	**494,59**	**5,75**	**0,01**	**2,68**	**45,16**	**8,43**	**0,00**
1. Solid Fuels	**0,00**	**3,97**	**0,00**	**0,00**	**43,43**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,97	0,00	0,00	43,43	0,00	0,00
Storage of solid fluid					43,43		
2. Oil and Natural Gas	**494,59**	**1,78**	**0,01**	**2,68**	**1,74**	**8,43**	**0,00**
a. Oil	0,00	0,04				7,57	
b. Natural Gas	0,00	0,34				0,10	
c. Venting and Flaring	494,59	1,40	0,01	2,68	1,74	0,76	0,00
Venting	0,00	0,00					
Flaring	494,59	1,40	0,01	2,68	1,74	0,76	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**4.406,62**	**0,09**	**0,23**	**82,45**	**7,79**	**2,31**	**46,32**
Aviation	1.634,90	0,03	0,06	6,62	1,34	0,29	0,05
Marine	2.771,72	0,06	0,17	75,83	6,45	2,03	46,27
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**5.012,71**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**796.343,51**	NCV				**61.587,86**	**9,68**	**2,27**
Liquid Fuels	312.588,41	NCV	74,67	11,75	3,02	23.341,06	3,67	0,94
Solid Fuels	345.917,40	NCV	95,00	2,56	3,00	32.862,15	0,89	1,04
Gaseous Fuels	86.421,60	NCV	56,90	12,16	1,00	4.917,39	1,05	0,09
Biomass	50.949,10	NCV	98,39	78,94	3,96 [3]	5.012,71	4,02	0,20
Other Fuels	467,00	NCV	1.000,56	105,84	0,66	467,26	0,05	0,00
1.A.1. Energy Industries	**413.353,10**	NCV				**35.155,19**	**1,70**	**1,17**
Liquid Fuels	30.579,80	NCV	67,87	2,46	2,00	2.075,57	0,08	0,06
Solid Fuels	325.287,00	NCV	95,00	1,78	3,00	30.902,27	0,58	0,98
Gaseous Fuels	31.086,20	NCV	56,90	20,87	1,00	1.768,80	0,65	0,03
Biomass	26.400,10	NCV	95,70	15,05	3,96 [3]	2.526,48	0,40	0,10
Other Fuels	0,00	NCV	0,00	0,00	0,00	408,55	0,00	0,00
a. Public Electricity and Heat Production	387.514,90	NCV				33.641,31	1,60	1,13
Liquid Fuels	14.089,80	NCV	77,62	2,86	2,00	1.093,60	0,04	0,03
Solid Fuels	325.287,00	NCV	95,00	1,78	3,00	30.902,27	0,58	0,98
Gaseous Fuels	21.738,00	NCV	56,90	27,05	1,00	1.236,89	0,59	0,02
Biomass	26.400,10	NCV	95,70	15,05	3,96 [3]	2.526,48	0,40	0,10
Other Fuels	0,00	NCV	0,00	0,00	0,00	408,55	0,00	0,00
b. Petroleum Refining	16.490,00	NCV				981,97	0,03	0,03
Liquid Fuels	16.490,00	NCV	59,55	2,12	2,00	981,97	0,03	0,03
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	9.348,20	NCV				531,91	0,06	0,01
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	9.348,20	NCV	56,90	6,50	1,00	531,91	0,06	0,01
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**86.515,85**	NCV					**6.011,90**	**0,87**	**0,18**
Liquid Fuels	39.218,05	NCV	77,42	7,30	2,20		3.036,19	0,29	0,09
Solid Fuels	16.383,70	NCV	95,00	15,00	3,00		1.556,45	0,25	0,05
Gaseous Fuels	24.943,10	NCV	56,90	6,06	1,00		1.419,26	0,15	0,02
Biomass	5.971,00	NCV	101,97	31,95	4,00	[3]	608,86	0,19	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	86.515,85	NCV					6.011,90	0,87	0,18
Liquid Fuels	39.218,05	NCV	77,42	7,30	2,20		3.036,19	0,29	0,09
Solid Fuels	16.383,70	NCV	95,00	15,00	3,00		1.556,45	0,25	0,05
Gaseous Fuels	24.943,10	NCV	56,90	6,06	1,00		1.419,26	0,15	0,02
Biomass	5.971,00	NCV	101,97	31,95	4,00	[3]	608,86	0,19	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**148.062,35**	NCV					**10.896,40**	**2,98**	**0,55**
Gasoline	74.263,61	NCV	72,96	34,16	3,01		5.418,62	2,54	0,22
Diesel	73.331,74	NCV	74,24	5,38	4,43		5.443,79	0,39	0,32
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	467,00	NCV	72,78	105,84	0,66		33,99	0,05	0,00
a. Civil Aviation	2.726,64	NCV					196,42	0,01	0,01
Aviation Gasoline	105,33	NCV	73,00	21,90	2,00		7,69	0,00	0,00
Jet Kerosene	2.621,31	NCV	72,00	1,37	3,39		188,73	0,00	0,01
b. Road Transportation	132.845,49	NCV					9.758,91	2,89	0,49
Gasoline	71.536,97	NCV	73,00	35,38	3,00		5.222,20	2,53	0,21
Diesel Oil	61.295,81	NCV	74,00	5,87	4,55		4.535,89	0,36	0,28
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	12,72	NCV					0,83	0,00	0,00
	12,72	NCV	65,00	25,24	5,66		0,83	0,00	0,00
c. Railways	4.094,38	NCV					302,96	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.094,38	NCV	74,00	4,87	2,04		302,96	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	8.395,84	NCV					638,10	0,06	0,04
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	4.316,74	NCV	78,00	1,76	4,89		336,71	0,01	0,02
Gas/Diesel Oil	3.624,82	NCV	74,00	1,92	4,54		268,23	0,01	0,02
Other Fuels *(please specify)*	454,28	NCV					33,16	0,05	0,00
	454,28	NCV	73,00	108,10	0,52		33,16	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**148.412,21**	NCV					**9.237,68**	**4,11**	**0,35**
Liquid Fuels	95.195,21	NCV	74,38	3,82	2,49		7.080,20	0,36	0,24
Solid Fuels	4.246,70	NCV	95,00	15,00	3,00		403,44	0,06	0,01
Gaseous Fuels	30.392,30	NCV	56,90	8,28	1,00		1.729,32	0,25	0,03
Biomass	18.578,00	NCV	101,05	184,83	3,95 [3]		1.877,38	3,43	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		24,72	0,00	0,00
a. Commercial/Institutional	20.821,90	NCV					1.324,27	0,15	0,04
Liquid Fuels	11.879,20	NCV	74,44	1,82	2,01		884,33	0,02	0,02
Solid Fuels	10,70	NCV	95,00	14,95	2,99		1,02	0,00	0,00
Gaseous Fuels	7.279,60	NCV	56,90	10,34	1,00		414,21	0,08	0,01
Biomass	1.652,40	NCV	91,36	29,48	3,47 [3]		150,97	0,05	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		24,72	0,00	0,00
b. Residential	90.366,60	NCV					5.369,91	3,04	0,19
Liquid Fuels	55.196,30	NCV	74,00	3,78	2,01		4.084,69	0,21	0,11
Solid Fuels	1.290,60	NCV	95,00	15,00	3,00		122,61	0,02	0,00
Gaseous Fuels	20.432,60	NCV	56,90	6,00	1,00		1.162,61	0,12	0,02
Biomass	13.447,10	NCV	102,00	200,00	4,00 [3]		1.371,60	2,69	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	37.223,71	NCV					2.543,50	0,93	0,13
Liquid Fuels	28.119,71	NCV	75,08	4,74	3,64		2.111,19	0,13	0,10
Solid Fuels	2.945,40	NCV	95,00	15,00	3,00		279,81	0,04	0,01
Gaseous Fuels	2.680,10	NCV	56,90	20,03	1,00		152,50	0,05	0,00
Biomass	3.478,50	NCV	102,00	200,00	4,00 [3]		354,81	0,70	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**286,69**	**0,02**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		286,69	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	299.352,00	216.765,00	181.645,00		1.329,00	333.143,00	1,00	NCV	333.143,00	20,00	6.662,86		6.662,86	1,00	24.430,49
		Orimulsion	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	22,00	0,00		0,00	1,00	0,00
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		30.642,00	24.455,00	2,00	-97,00	6.282,00	1,00	NCV	6.282,00	18,90	118,73		118,73	1,00	435,34
		Jet Kerosene	TJ		26.358,00	2.793,00	22.950,00	2.305,00	-1.690,00	1,00	NCV	-1.690,00	19,50	-32,96		-32,96	1,00	-120,84
		Other Kerosene	TJ		183,00	82,00	0,00	-281,00	382,00	1,00	NCV	382,00	19,60	7,49		7,49	1,00	27,45
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		68.950,00	46.504,00	12.590,00	204,00	9.652,00	1,00	NCV	9.652,00	20,20	194,97	0,00	194,97	1,00	714,89
		Residual Fuel Oil	TJ		16.766,00	48.253,00	23.470,00	-11.223,00	-43.734,00	1,00	NCV	-43.734,00	21,10	-922,79		-922,79	1,00	-3.383,55
		LPG	TJ		626,00	2.973,00		100,00	-2.447,00	1,00	NCV	-2.447,00	17,20	-42,09	0,00	-42,09	1,00	-154,32
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.005,00	7.312,00		-159,00	-6.148,00	1,00	NCV	-6.148,00	20,00	-122,96	15,45	-138,41	1,00	-507,50
		Bitumen	TJ		8.097,00	317,00		-173,00	7.953,00	1,00	NCV	7.953,00	22,00	174,97	184,69	-9,72	1,00	-35,65
		Lubricants	TJ		3.220,00	498,00	120,00	17,00	2.585,00	1,00	NCV	2.585,00	20,00	51,70	28,76	22,94	1,00	84,11
		Petroleum Coke	TJ		4.447,00	84,00		216,00	4.147,00	1,00	NCV	4.147,00	27,50	114,04		114,04	1,00	418,16
		Refinery Feedstocks	TJ		16.994,00	1.394,00		-668,00	16.268,00	1,00	NCV	16.268,00	20,00	325,36		325,36	1,00	1.192,99
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												326.393,00		6.529,33	228,90	6.300,43		23.101,56
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	326.293,00	2.146,00	0,00	-20.167,00	344.314,00	1,00	NCV	344.314,00	25,80	8.883,30		8.883,30	1,00	32.572,10
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	80,00	24,00		-30,00	86,00	1,00	NCV	86,00	27,60	2,37		2,37	1,00	8,70
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.475,00	0,00		51,00	1.424,00	1,00	NCV	1.424,00	29,50	42,01		42,01	1,00	154,03
Solid Fuel Totals												345.824,00		8.927,68	0,00	8.927,68		32.734,84
Gaseous Fossil		Natural Gas (Dry)	TJ	145.712,00	0,00	52.406,00		7.147,00	86.159,00	1,00	NCV	86.159,00	15,30	1.318,23	0,00	1.318,23	1,00	4.833,52
Total												**758.376,00**		**16.775,24**	**228,90**	**16.546,34**		**60.669,92**
Biomass total												51.747,00		1.533,41	0,00	1.533,41		5.622,50
		Solid Biomass	TJ	50.093,00	0,00	0,00		0,00	50.093,00	1,00	NCV	50.093,00	29,90	1.497,78		1.497,78	1,00	5.491,86
		Liquid Biomass	TJ	744,00	0,00	0,00		0,00	744,00	1,00	NCV	744,00	20,00	14,88		14,88	1,00	54,56
		Gas Biomass	TJ	910,00	0,00	0,00		0,00	910,00	1,00	NCV	910,00	22,80	20,75		20,75	1,00	76,08

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	326,39	23.101,56	312,59	23.341,06	4,42	-1,03
Solid Fuels (excluding international bunkers)	345,82	32.734,84	345,92	32.862,15	-0,03	-0,39
Gaseous Fuels	86,16	4.833,52	86,42	4.917,39	-0,30	-1,71
Other [3]	-12,30	433,27	0,47	467,26	-2.734,06	-7,27
Total [3]	**746,08**	**61.103,19**	**745,39**	**61.587,86**	**0,09**	**-0,79**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)
CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.030,00	0,75	20,00	15,45
Lubricants	2.876,00	0,50	20,00	28,76
Bitumen	8.395,00	1,00	22,00	184,69
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
56,65	
105,45	
677,20	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,97	0,00
	12,81	0,31	0,00	3,97	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,04**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		7.798.000,00	0,00	0,01			0,04	
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	1.680.139	0,00	0,00				
vi. Other		Mg Crude	0	0,00	0,00				
1. B. 2. b. Natural Gas							**0,00**	**0,34**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	0	0,00	0,00				
ii. Transmission	*Gas produced and stock change*	Mm3 gas	5.310	0,00	63,32			0,34	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**494,59**	**1,40**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	0	0,00	0,00	0,00			
ii. Gas	*(e.g. PJ gas consumption)*	GJ	8.692.198	56,90	0,16	0,00	494,59	1,40	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**36.180,50**				**2.771,72**	**0,06**	**0,17**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	12.589,67	74,00	1,69	4,68	931,64	0,02	0,06
Residual Fuel Oil	23.590,83	78,00	1,76	4,89	1.840,08	0,04	0,12
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**22.706,45**				**1.634,90**	**0,03**	**0,06**
Jet Kerosene	22.671,99	72,00	1,14	2,45	1.632,38	0,03	0,06
Gasoline	34,46	73,00	21,91	2,00	2,52	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	18,83	81,17
Aviation	10,72	89,28

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.178,08**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products	**1.178,08**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.087,28												
2. Lime Production	90,80												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00										
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,00**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00												
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**0,00**	**0,00**	**0,00**	**0,00**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				0,00	0,00	0,00	0,00		0,00				
2. Foam Blowing				0,00	0,00		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1991

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.178,08**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	1.998,67	0,54			1.087,28					
2. Lime Production	Production of Lime and Brigs	377,72	0,24			90,80					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		0,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1991

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		0,00	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**2,60**
C. Metal Production															**0,00**	**0,00**							**1,30**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							1,30
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**1,30**
1. Refrigeration and Air Conditioning Equipment																							
2. Foam Blowing							0,00																
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,05
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		1,25
																							1,25
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**62,07**
C. Metal Production															0,00	0,00						0,00	31,07
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	31,00
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	31,00
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

1991

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				1,30	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	1,30	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF_6
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
(e.g. HFC-32)									
(e.g. HFC-125)									
(e.g. HFC-134a)									
(e.g. HFC-152a)									
(e.g. HFC-143a)									
Commercial Refrigeration									
Transport Refrigeration									
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
2 Foam Blowing									
Hard Foam									
Soft Foam									

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1991

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,20	9,80	0,00	5,00	0,50	5,00	0,06	0,05	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	5,00	2,13	0,00	15,00	1,00	65,00	0,75	0,00	0,00
SF6 (laboratories)	0,40	0,00	0,00	100,00	0,00	0,00	0,40	0,00	0,00
SF6 (running shoes)	0,00	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

For HFCs and PFCs no activities are registered for years 1990 and 1991.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**122,40**	**0,00**	**41,87**
A. Paint Application	**78,50**		**25,19**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,60**
D. Other *(please specify)*	43,90	0,00	14,09
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	43,90		14,09

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**193,63**	**32,35**	**0,00**	**0,00**	**1,07**
A. Enteric Fermentation	**150,52**				
1. Cattle	131,89				
Dairy Cattle	77,13				
Non-Dairy Cattle	54,76				
2. Buffalo	NO				
3. Sheep	1,51				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,46				
7. Mules and Asses	NO				
8. Swine	14,67				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**43,10**	**1,51**			**0,00**
1. Cattle	18,08				
Dairy Cattle	15,71				
Non-Dairy Cattle	2,37				
2. Buffalo	NO				
3. Sheep	0,09				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,15				
7. Mules and Asses	NO				
8. Swine	24,16				
9. Poultry	0,62				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,22			NE
12. Solid Storage and Dry Lot		1,30			NE
13. Other *(please specify)*		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)*	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**30,84**			**1,07**
1. Direct Soil Emissions	NE	19,40			1,07
2. Animal Production	NE	1,26			NE
3. Indirect Emissions	NE	10,06			NE
4. Other *(please specify)*	0,00	0,12			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)*	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	742	264,7	6,00	104,00
Non-Dairy Cattle	1.480	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	188			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	137			18,00
7. Mules and Asses				0,00
8. Swine	9.783			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals [b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation [c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	742	100,0			550,0	2.115,0	0,2	21,19
Non-Dairy Cattle	1.480	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	188	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	137	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	9.783	100,0			76,0	110,0	0,5	2,47
9. Poultry	19.787	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1991

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	742								Anaerobic lagoon	0,000
Dairy Cattle	1.480								Liquid system	0,000
Sheep	277								Solid storage and dry lot	0,000
Swine	15.418								Other	0,000
Poultry	19.787									
Other *(please specify)*										
Total per AWMS[2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1991

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Agricultural Soils[(1)]

(Sheet 1 of 1)

Denmark

1991

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**19,40**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	394.900.000	(kg N2O-N/kg N)[(2)]	0,012	7,60
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	250.100.000	(kg N2O-N/kg N)[(2)]	0,009	3,52
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	33.600.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,66
Crop Residue	Dry production of other crops (kg dry biomass/yr)	380.400.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	7,47
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**42.700.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	1,26
Indirect Emissions					**10,06**
Atmospheric Deposition	(kg N/yr)	81.665.300	(kg N2O-N/kg N)[(2)]	0,010	1,28
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	223.500.000	(kg N2O-N/kg N)[(2)]	0,025	8,78
Other *(please specify)*					**0,12**
Sewage sludge used as fertilizer	(kg N/yr)	6.100.000	(kg N2O-N/kg N)[(2)]	0,013	0,12
Industrial waste used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[(2)]	0,000	
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,15
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,32
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1991

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:

According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.119,00**	**-3.119,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.119,00**	**-3.119,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-1,00	-1,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-1,00	-1,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1991

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

Year	Climate [a]	land-use/ management system [a]	Soil type: High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**63,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**63,70**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	63,70		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	3.032,30				0,02	#VALUE!	63,70	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

[1] Actual emissions (after recovery).

[2] CH_4 recovered and flared or utilized.

[3] Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.

[b] See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

[c] For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC (kgCOD/m^3)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**63.382,93**	**-3.119,00**	**272,76**	**34,63**	**0,00**	**0,00**	**0,00**	**0,00**	**0,01**	**0,00**	**318,84**	**755,50**	**172,93**	**238,65**
1. Energy		**62.082,45**		**15,43**	**2,28**							**318,84**	**755,50**	**120,68**	**238,65**
A. Fuel Combustion	Reference Approach [2]	60.669,92													
	Sectoral Approach [2]	61.587,86		9,68	2,27							316,17	710,33	112,25	238,65
1. Energy Industries		35.155,19		1,70	1,17							135,11	10,08	1,48	188,21
2. Manufacturing Industries and Construction		6.011,90		0,87	0,18							22,14	14,51	4,18	22,79
3. Transport		10.896,40		2,98	0,55							116,10	496,28	87,21	12,97
4. Other Sectors		9.237,68		4,11	0,35							40,96	188,48	19,18	14,52
5. Other		286,69		0,02	0,01							1,86	0,98	0,20	0,16
B. Fugitive Emissions from Fuels		494,59		5,75	0,01							2,68	45,16	8,43	0,00
1. Solid Fuels		0,00		3,97	0,00							0,00	43,43	0,00	0,00
2. Oil and Natural Gas		494,59		1,78	0,01							2,68	1,74	8,43	0,00
2. Industrial Processes		**1.178,08**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products		1.178,08		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production		0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production [3]		0,00										0,00	0,00	0,00	0,00
E. Production of Halocarbons and SF_6							0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6						0,00	0,00	0,00	0,00	0,01	0,00				
G. Other		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**122,40**			**0,00**									**41,87**	
4. Agriculture	**0,00**	**0,00**	**193,63**	**32,35**							0,00	0,00	1,07	0,00
A. Enteric Fermentation			150,52											
B. Manure Management			43,10	1,51									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	30,84									1,07	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.119,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.119,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,31	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**63,70**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		63,70									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
Memo Items: [7]														
International Bunkers	**4.406,62**		**0,09**	**0,23**							**82,45**	**7,79**	**2,31**	**46,32**
Aviation	1.634,90		0,03	0,06							6,62	1,34	0,29	0,05
Marine	2.771,72		0,06	0,17							75,83	6,45	2,03	46,27
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**5.012,71**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**63.382,93**	**-3.119,00**	**272,76**	**34,63**	**0,00**	**0,00**	**0,00**	**0,00**	**0,01**	**0,00**	**318,84**	**755,50**	**172,93**	**238,65**
1. Energy		**62.082,45**		**15,43**	**2,28**							**318,84**	**755,50**	**120,68**	**238,65**
A. Fuel Combustion	Reference Approach[2]	60.669,92													
	Sectoral Approach[2]	61.587,86		9,68	2,27							316,17	710,33	112,25	238,65
B. Fugitive Emissions from Fuels		494,59		5,75	0,01							2,68	45,16	8,43	0,00
2. Industrial Processes		**1.178,08**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
3. Solvent and Other Product Use		**122,40**			**0,00**							**0,00**	**0,00**	**41,87**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**193,63**	**32,35**							**0,00**	**0,00**	**1,07**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.119,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
6. Waste		**0,00**		**63,70**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**4.406,62**		**0,09**	**0,23**							**82,45**	**7,79**	**2,31**	**46,32**
Aviation		1.634,90		0,03	0,06							6,62	1,34	0,29	0,05
Marine		2.771,72		0,06	0,17							75,83	6,45	2,03	46,27
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.012,71**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**60.263,93**	**5.728,02**	**10.736,77**	**0,00**	**0,00**	**62,07**	**76.790,78**
1. Energy	**62.082,45**	**324,12**	**706,78**				**63.113,35**
A. Fuel Combustion (Sectoral Approach)	61.587,86	203,35	704,09				62.495,30
1. Energy Industries	35.155,19	35,67	363,56				35.554,42
2. Manufacturing Industries and Construction	6.011,90	18,36	57,14				6.087,39
3. Transport	10.896,40	62,60	170,17				11.129,17
4. Other Sectors	9.237,68	86,36	109,54				9.433,58
5. Other	286,69	0,36	3,68				290,73
B. Fugitive Emissions from Fuels	494,59	120,77	2,69				618,05
1. Solid Fuels	0,00	83,39	0,00				83,39
2. Oil and Natural Gas	494,59	37,38	2,69				534,66
2. Industrial Processes	**1.178,08**	**0,00**	**0,00**	**0,00**	**0,00**	**62,07**	**1.240,15**
A. Mineral Products	1.178,08	0,00	0,00				1.178,08
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	31,07	31,07
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				0,00	0,00	31,00	31,00
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**122,40**		**0,00**				**122,40**
4. Agriculture	**0,00**	**4.066,19**	**10.029,99**				**14.096,18**
A. Enteric Fermentation		3.161,02					3.161,02
B. Manure Management		905,17	469,10				1.374,27
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	9.560,89				9.560,89
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.119,00**	**0,00**	**0,00**				**-3.119,00**
6. Waste	**0,00**	**1.337,70**	**0,00**				1.337,70
A. Solid Waste Disposal on Land	0,00	1.337,70					1.337,70
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**4.406,62**	**1,87**	**71,28**				**4.479,78**
Aviation	1.634,90	0,56	17,24				1.652,70
Marine	2.771,72	1,32	54,04				2.827,08
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**5.012,71**						**5.012,71**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.119,00	-3.119,00			-3.119,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.119,00	-3.119,00	0,00	0,00	-3.119,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	79.909,78
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	76.790,78

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA Denmark

Recalculated year: 2003 1991

(Sheet 1 of 2) 2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**62.542,35**	**60.263,93**	**-3,64**	**5.904,91**	**5.728,02**	**-3,00**	**10.729,85**	**10.736,77**	**0,06**
1. Energy		**62.159,87**	**62.082,45**	**-0,12**	**542,92**	**324,12**	**-40,30**	**699,86**	**706,78**	**0,99**
1.A.	Fuel Combustion Activities	61.665,28	61.587,86	-0,13	253,76	203,35	-19,86	697,17	704,09	0,99
1.A.1.	Energy Industries	35.155,19	35.155,19	0,00	35,15	35,67	1,49	358,95	363,56	1,29
1.A.2.	Manufacturing Industries and Construction	6.011,90	6.011,90	0,00	16,55	18,36	10,89	57,09	57,14	0,07
1.A.3.	Transport	10.973,82	10.896,40	-0,71	64,33	62,60	-2,69	172,58	170,17	-1,40
1.A.4.	Other Sectors	9.237,68	9.237,68	0,00	137,40	86,36	-37,14	104,53	109,54	4,79
1.A.5.	Other	286,69	286,69	0,00	0,33	0,36	10,73	4,01	3,68	-8,29
1.B.	Fugitive Emissions from Fuels	494,59	494,59	0,00	289,16	120,77	-58,23	2,69	2,69	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	81,37	83,39	2,48	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	494,59	494,59	0,00	207,79	37,38	-82,01	2,69	2,69	0,00
2. Industrial Processes		**1.178,08**	**1.178,08**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.178,08	1.178,08	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**122,40**	**122,40**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**4.024,29**	**4.066,19**	**1,04**	**10.029,99**	**10.029,99**	**0,00**
4.A.	Enteric Fermentation				3.121,53	3.161,02	1,27			
4.B.	Manure Management				902,76	905,17	0,27	469,10	469,10	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	9.560,89	9.560,89	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-918,00**	**-3.119,00**	**239,76**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-918,00	-3.119,00	239,76						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.337,70**	**1.337,70**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.337,70	1.337,70	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**4.425,76**	**4.406,62**	**-0,43**	**2,03**	**1,87**	**-7,66**	**71,55**	**71,28**	**-0,37**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.012,71**	**5.012,71**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**62,07**	**62,07**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	31,07	31,07	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	31,00	31,00	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**0,00**	**0,00**		**0,00**	**0,00**		**160,13**	**160,13**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	79.239,18	76.790,78	-3,09
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	80.157,18	79.909,78	-0,31

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1991
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1991
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	
CH_4	Waste Incineration non biogenic	6.C	1.A1a	
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	
N_2O	Waste Incineration non biogenic	6.C	1.A1a	
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1991
2003, Apr 15

Additional GHG emissions reported[4]						
GHG 	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1991

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☐			

		Worksheet 1-1	Percentage of difference	Explanation of differences
CO_2	Comparison of CO_2 from fuel combustion:	☐	-0,79	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1992

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**56.141,54**	**15,79**	**2,16**	**275,18**	**745,30**	**119,52**	**186,02**
A. Fuel Combustion Activities (Sectoral Approach)	**55.630,76**	**10,27**	**2,15**	**272,41**	**703,02**	**111,59**	**186,02**
1. Energy Industries	**30.126,95**	**2,13**	**1,02**	**93,54**	**9,50**	**1,59**	**143,71**
a. Public Electricity and Heat Production	28.399,77	2,02	0,97	88,98	8,87	1,49	136,39
b. Petroleum Refining	1.114,43	0,04	0,04	2,00	0,33	0,07	7,32
c. Manufacture of Solid Fuels and Other Energy Industries	612,76	0,07	0,01	2,56	0,30	0,02	0,00
2. Manufacturing Industries and Construction	**5.872,64**	**0,87**	**0,18**	**21,92**	**14,55**	**4,20**	**21,87**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	5.872,64	0,87	0,18	21,92	14,55	4,20	21,87
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				21,92	14,55	4,20	21,87
3. Transport	**11.020,82**	**3,11**	**0,61**	**115,15**	**487,97**	**86,30**	**7,46**
a. Civil Aviation	191,88	0,01	0,01	0,90	0,96	0,16	0,01
b. Road Transportation	9.926,34	3,02	0,56	101,40	476,56	80,50	3,82
c. Railways	320,28	0,02	0,01	2,99	0,53	0,20	0,26
d. Navigation	582,31	0,06	0,03	9,86	9,91	5,44	3,36
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.469,57**	**4,16**	**0,33**	**40,79**	**190,49**	**19,39**	**12,91**
a. Commercial/Institutional	1.202,83	0,17	0,03	1,15	0,77	0,20	1,35
b. Residential	4.797,50	3,08	0,17	4,78	166,50	12,19	6,08
c. Agriculture/Forestry/Fisheries	2.469,25	0,91	0,13	34,85	23,22	7,00	5,48
5. Other *(please specify)* [1]	**140,79**	**0,01**	**0,01**	**1,01**	**0,50**	**0,11**	**0,06**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	140,79	0,01	0,01	1,01	0,50	0,11	0,06
Emissions from military combustion of fuels	140,79	0,01	0,01	1,01	0,50	0,11	0,06
B. Fugitive Emissions from Fuels	**510,78**	**5,52**	**0,01**	**2,76**	**42,28**	**7,93**	**0,00**
1. Solid Fuels	**0,00**	**3,91**	**0,00**	**0,00**	**40,48**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,91	0,00	0,00	40,48	0,00	0,00
Storage of solid fluid					40,48		
2. Oil and Natural Gas	**510,78**	**1,61**	**0,01**	**2,76**	**1,80**	**7,93**	**0,00**
a. Oil	0,00	0,04				7,11	
b. Natural Gas	0,00	0,12				0,04	
c. Venting and Flaring	510,78	1,45	0,01	2,76	1,80	0,78	0,00
Venting	0,00	0,00					
Flaring	510,78	1,45	0,01	2,76	1,80	0,78	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**4.590,04**	**0,09**	**0,24**	**86,16**	**8,12**	**2,41**	**37,68**
Aviation	1.694,63	0,03	0,06	6,87	1,38	0,29	0,05
Marine	2.895,41	0,07	0,18	79,29	6,74	2,12	37,63
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**5.319,17**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**738.109,18**	NCV				**55.630,76**	**10,27**	**2,15**
Liquid Fuels	305.344,33	NCV	74,20	12,41	3,21	22.655,26	3,79	0,98
Solid Fuels	288.115,20	NCV	95,00	2,58	3,00	27.370,94	0,74	0,86
Gaseous Fuels	90.524,00	NCV	56,90	17,31	1,00	5.150,82	1,57	0,09
Biomass	53.652,90	NCV	99,14	76,83	3,97 [3]	5.319,17	4,12	0,21
Other Fuels	472,75	NCV	959,79	105,83	0,66	453,74	0,05	0,00
1.A.1. Energy Industries	**364.025,00**	NCV				**30.126,95**	**2,13**	**1,02**
Liquid Fuels	31.612,80	NCV	67,95	2,46	2,00	2.148,06	0,08	0,06
Solid Fuels	270.344,30	NCV	95,00	1,76	3,00	25.682,71	0,48	0,81
Gaseous Fuels	33.404,00	NCV	56,90	33,85	1,00	1.900,69	1,13	0,03
Biomass	28.663,90	NCV	97,18	15,41	3,97 [3]	2.785,58	0,44	0,11
Other Fuels	0,00	NCV	0,00	0,00	0,00	395,49	0,00	0,00
a. Public Electricity and Heat Production	335.007,70	NCV				28.399,77	2,02	0,97
Liquid Fuels	13.364,50	NCV	77,34	2,82	2,00	1.033,64	0,04	0,03
Solid Fuels	270.344,30	NCV	95,00	1,76	3,00	25.682,71	0,48	0,81
Gaseous Fuels	22.635,00	NCV	56,90	46,89	1,00	1.287,93	1,06	0,02
Biomass	28.663,90	NCV	97,18	15,41	3,97 [3]	2.785,58	0,44	0,11
Other Fuels	0,00	NCV	0,00	0,00	0,00	395,49	0,00	0,00
b. Petroleum Refining	18.248,30	NCV				1.114,43	0,04	0,04
Liquid Fuels	18.248,30	NCV	61,07	2,19	2,00	1.114,43	0,04	0,04
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	10.769,00	NCV				612,76	0,07	0,01
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	10.769,00	NCV	56,90	6,43	1,00	612,76	0,07	0,01
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**85.355,95**	NCV					**5.872,64**	**0,87**	**0,18**
Liquid Fuels	38.950,95	NCV	77,86	7,59	2,22		3.032,53	0,30	0,09
Solid Fuels	14.410,20	NCV	95,00	15,00	3,00		1.368,97	0,22	0,04
Gaseous Fuels	25.854,80	NCV	56,90	6,07	1,00		1.471,14	0,16	0,03
Biomass	6.140,00	NCV	101,97	31,95	4,00	[3]	626,10	0,20	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	85.355,95	NCV					5.872,64	0,87	0,18
Liquid Fuels	38.950,95	NCV	77,86	7,59	2,22		3.032,53	0,30	0,09
Solid Fuels	14.410,20	NCV	95,00	15,00	3,00		1.368,97	0,22	0,04
Gaseous Fuels	25.854,80	NCV	56,90	6,07	1,00		1.471,14	0,16	0,03
Biomass	6.140,00	NCV	101,97	31,95	4,00	[3]	626,10	0,20	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**149.840,11**	NCV					**11.020,82**	**3,11**	**0,61**
Gasoline	77.858,73	NCV	72,97	34,38	3,72		5.681,13	2,68	0,29
Diesel	71.508,63	NCV	74,19	5,41	4,44		5.305,28	0,39	0,32
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	472,75	NCV	72,78	105,83	0,66		34,41	0,05	0,00
a. Civil Aviation	2.663,62	NCV					191,88	0,01	0,01
Aviation Gasoline	102,03	NCV	73,00	21,90	2,00		7,45	0,00	0,00
Jet Kerosene	2.561,59	NCV	72,00	1,41	3,48		184,43	0,00	0,01
b. Road Transportation	135.157,50	NCV					9.926,34	3,02	0,56
Gasoline	75.195,11	NCV	73,00	35,52	3,74		5.489,24	2,67	0,28
Diesel Oil	59.949,57	NCV	74,00	5,88	4,58		4.436,27	0,35	0,27
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	12,82	NCV					0,83	0,00	0,00
	12,82	NCV	65,00	24,58	5,70		0,83	0,00	0,00
c. Railways	4.328,29	NCV					320,28	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.328,29	NCV	74,00	4,86	2,04		320,28	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	7.690,69	NCV					582,31	0,06	0,03
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	3.415,25	NCV	78,00	1,76	4,89		266,39	0,01	0,02
Gas/Diesel Oil	3.815,51	NCV	74,00	1,91	4,55		282,35	0,01	0,02
Other Fuels *(please specify)*	459,93	NCV					33,58	0,05	0,00
	459,93	NCV	73,00	108,10	0,52		33,58	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**138.888,12**	NCV					**8.469,57**	**4,16**	**0,33**
Liquid Fuels	85.413,22	NCV	74,31	4,03	2,55		6.347,47	0,34	0,22
Solid Fuels	3.360,70	NCV	95,00	15,00	3,00		319,27	0,05	0,01
Gaseous Fuels	31.265,20	NCV	56,90	8,93	1,00		1.778,99	0,28	0,03
Biomass	18.849,00	NCV	101,20	184,84	3,96 [3]		1.907,49	3,48	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		23,84	0,00	0,00
a. Commercial/Institutional	19.245,70	NCV					1.202,83	0,17	0,03
Liquid Fuels	10.036,30	NCV	74,38	1,82	2,01		746,51	0,02	0,02
Solid Fuels	95,90	NCV	95,00	14,99	3,00		9,11	0,00	0,00
Gaseous Fuels	7.440,50	NCV	56,90	13,04	1,00		423,36	0,10	0,01
Biomass	1.673,00	NCV	92,97	29,24	3,52 [3]		155,54	0,05	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		23,84	0,00	0,00
b. Residential	83.153,22	NCV					4.797,50	3,08	0,17
Liquid Fuels	47.007,22	NCV	74,07	4,20	2,01		3.481,74	0,20	0,09
Solid Fuels	1.008,80	NCV	95,00	15,00	3,00		95,84	0,02	0,00
Gaseous Fuels	21.439,70	NCV	56,90	6,08	1,00		1.219,92	0,13	0,02
Biomass	13.697,50	NCV	102,00	200,00	4,00 [3]		1.397,15	2,74	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	36.489,20	NCV					2.469,25	0,91	0,13
Liquid Fuels	28.369,70	NCV	74,70	4,54	3,63		2.119,22	0,13	0,10
Solid Fuels	2.256,00	NCV	95,00	15,00	3,00		214,32	0,03	0,01
Gaseous Fuels	2.385,00	NCV	56,90	21,76	1,00		135,71	0,05	0,00
Biomass	3.478,50	NCV	102,00	200,00	4,00 [3]		354,81	0,70	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**140,79**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		140,79	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	332.048,00	222.382,00	189.009,00		9.158,00	356.263,00	1,00	NCV	356.263,00	20,00	7.125,26		7.125,26	1,00	26.125,95
		Orimulsion	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	22,00	0,00		0,00	1,00	0,00
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		35.625,00	24.784,00	4,00	971,00	9.866,00	1,00	NCV	9.866,00	18,90	186,47		186,47	1,00	683,71
		Jet Kerosene	TJ		25.127,00	3.870,00	23.761,00	-1.762,00	-742,00	1,00	NCV	-742,00	19,50	-14,47		-14,47	1,00	-53,05
		Other Kerosene	TJ		42,00	7,00	0,00	72,00	-37,00	1,00	NCV	-37,00	19,60	-0,73		-0,73	1,00	-2,66
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		63.310,00	61.715,00	16.881,00	-10.134,00	-5.152,00	1,00	NCV	-5.152,00	20,20	-104,07	0,00	-104,07	1,00	-381,59
		Residual Fuel Oil	TJ		22.099,00	62.734,00	20.998,00	-11.230,00	-50.403,00	1,00	NCV	-50.403,00	21,10	-1.063,50		-1.063,50	1,00	-3.899,51
		LPG	TJ		616,00	3.020,00		-270,00	-2.134,00	1,00	NCV	-2.134,00	17,20	-36,70	0,00	-36,70	1,00	-134,58
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		918,00	5.585,00		200,00	-4.867,00	1,00	NCV	-4.867,00	20,00	-97,34	14,19	-111,53	1,00	-408,94
		Bitumen	TJ		9.025,00	374,00		27,00	8.624,00	1,00	NCV	8.624,00	22,00	189,73	190,76	-1,03	1,00	-3,79
		Lubricants	TJ		3.114,00	533,00	108,00	-137,00	2.610,00	1,00	NCV	2.610,00	20,00	52,20	28,55	23,65	1,00	86,72
		Petroleum Coke	TJ		4.809,00	322,00		144,00	4.343,00	1,00	NCV	4.343,00	27,50	119,43		119,43	1,00	437,92
		Refinery Feedstocks	TJ		13.521,00	4.694,00		1.144,00	7.683,00	1,00	NCV	7.683,00	20,00	153,66		153,66	1,00	563,42
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												326.054,00		6.509,94	233,50	6.276,43		23.013,59
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	308.666,00	928,00	0,00	22.289,00	285.449,00	1,00	NCV	285.449,00	25,80	7.364,58		7.364,58	1,00	27.003,48
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	68,00	0,00		-12,00	80,00	1,00	NCV	80,00	27,60	2,21		2,21	1,00	8,10
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.156,00	0,00		-25,00	1.181,00	1,00	NCV	1.181,00	29,50	34,84		34,84	1,00	127,74
Solid Fuel Totals												286.710,00		7.401,63	0,00	7.401,63		27.139,32
Gaseous Fossil		Natural Gas (Dry)	TJ	151.778,00	0,00	57.461,00		3.723,00	90.594,00	1,00	NCV	90.594,00	15,30	1.386,09	0,00	1.386,09	1,00	5.082,32
Total												**703.358,00**		**15.297,66**	**233,50**	**15.064,15**		**55.235,23**
Biomass total												54.350,00		1.611,32	0,00	1.611,32		5.908,16
		Solid Biomass	TJ	52.707,00	0,00	0,00		0,00	52.707,00	1,00	NCV	52.707,00	29,90	1.575,94		1.575,94	1,00	5.778,44
		Liquid Biomass	TJ	744,00	0,00	0,00		0,00	744,00	1,00	NCV	744,00	20,00	14,88		14,88	1,00	54,56
		Gas Biomass	TJ	899,00	0,00	0,00		0,00	899,00	1,00	NCV	899,00	22,80	20,50		20,50	1,00	75,16

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	326,05	23.013,59	305,34	22.655,26	6,78	1,58
Solid Fuels (excluding international bunkers)	286,71	27.139,32	288,12	27.370,94	-0,49	-0,85
Gaseous Fuels	90,59	5.082,32	90,52	5.150,82	0,08	-1,33
Other [3]	-12,47	419,33	0,47	453,74	-2.738,18	-7,58
Total [3]	**690,89**	**55.654,56**	**684,46**	**55.630,76**	**0,94**	**0,04**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.

CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	946,00	0,75	20,00	14,19
Lubricants	2.855,00	0,50	20,00	28,55
Bitumen	8.671,00	1,00	22,00	190,76
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas [2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
52,03	
104,68	
699,46	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,91	0,00
	11,94	0,33	0,00	3,91	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,04**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		8.324.000,00	0,00	0,01			0,04	
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	1.820.381	0,00	0,00				
vi. Other		Mg Crude	0	0,00	0,00				
1. B. 2. b. Natural Gas							**0,00**	**0,12**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	0	0,00	0,00				
ii. Transmission	*Gas produced and stock change*	Mm3 gas	5.537	0,00	21,80			0,12	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**510,78**	**1,45**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	0	0,00	0,00	0,00			
ii. Gas	*(e.g. PJ gas consumption)*	GJ	8.976.770	56,90	0,16	0,00	510,78	1,45	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**37.986,32**				**2.895,41**	**0,07**	**0,18**
Gasoline	0,03	73,00	121,77	0,00	0,00	0,00	0,00
Gas/Diesel Oil	16.880,52	74,00	1,69	4,68	1.249,16	0,03	0,08
Residual Fuel Oil	21.105,77	78,00	1,76	4,89	1.646,25	0,04	0,10
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**23.536,03**				**1.694,63**	**0,03**	**0,06**
Jet Kerosene	23.502,57	72,00	1,13	2,46	1.692,18	0,03	0,06
Gasoline	33,46	73,00	21,90	2,00	2,44	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	16,84	83,16
Aviation	10,17	89,83

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.300,49**	**0,00**	**0,00**	**26,42**	**3,64**	**0,00**	**0,00**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products	**1.300,49**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.194,48												
2. Lime Production	106,01												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00										
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	$HFCs^{(1)}$		$PFCs^{(1)}$		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,00**	**0,00**
1. Pulp and Paper													
2. Food and Drink[(2)]	0,00												
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**26,42**	**3,64**	**0,00**	**0,00**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				23,40	0,62	0,00	0,00		0,00				
2. Foam Blowing				3,02	3,02		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[(2)] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1992

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.300,49**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.216,10	0,54			1.194,48					
2. Lime Production	Production of Lime and Brigs	406,43	0,26			106,01					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		0,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark

1992

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		0,00	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**2,48**	**3,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**3,73**
C. Metal Production															**0,00**	**0,00**							**1,30**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							1,30
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**2,48**	**3,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**2,43**
1. Refrigeration and Air Conditioning Equipment							0,48										0,00						
2. Foam Blowing							2,00	3,00															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,11
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		2,32
																							2,32
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**3,22**	**0,42**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**3,64**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**89,15**
C. Metal Production															0,00	0,00						0,00	31,07
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	3,22	0,42	0,00	0,00	0,00	0,00	0,00	3,64	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	58,08
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	3,22	0,42	0,00	0,00	0,00	0,00	0,00	3,64	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	58,08
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

1992

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				1,30	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	1,30	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Consumption of Halocarbons and SF_6

(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134a	10,00	9,80		2,00	1,00	0,00	0,20	0,00	0,00
Commercial Refrigeration									
Transport Refrigeration									
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
2 Foam Blowing									
Hard Foam									
Soft Foam									

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1992

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,20	10,20	0,00	5,00	0,50	5,00	0,06	0,05	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	12,00	7,20	0,00	15,00	1,00	65,00	1,80	0,02	0,00
SF6 (laboratories)	0,40	0,00	0,00	100,00	0,00	0,00	0,40	0,00	0,00
SF6 (running shoes)	0,00	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**121,22**	**0,00**	**41,44**
A. Paint Application	**77,82**		**24,97**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,55**
D. Other *(please specify)*	43,40	0,00	13,93
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	43,40		13,93

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**192,49**	**30,32**	**0,00**	**0,00**	**1,05**
A. Enteric Fermentation	**148,34**				
1. Cattle	128,72				
Dairy Cattle	74,04				
Non-Dairy Cattle	54,68				
2. Buffalo	NO				
3. Sheep	1,46				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,48				
7. Mules and Asses	NO				
8. Swine	15,68				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**44,14**	**1,55**			**0,00**
1. Cattle	17,32				
Dairy Cattle	14,96				
Non-Dairy Cattle	2,36				
2. Buffalo	NO				
3. Sheep	0,08				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,15				
7. Mules and Asses	NO				
8. Swine	25,86				
9. Poultry	0,72				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,22			NE
12. Solid Storage and Dry Lot		1,33			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**28,77**			**1,05**
1. Direct Soil Emissions	NE	17,54			1,05
2. Animal Production	NE	1,26			NE
3. Indirect Emissions	NE	9,83			NE
4. Other *(please specify)* [redacted]	0,00	0,14			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	712	264,7	6,00	104,00
Non-Dairy Cattle	1.478	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	182			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	138			18,00
7. Mules and Asses				0,00
8. Swine	10.455			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals [b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation [c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	712	100,0			550,0	2.115,0	0,2	21,01
Non-Dairy Cattle	1.478	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	182	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	138	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	10.455	100,0			76,0	110,0	0,5	2,47
9. Poultry	35.527	100,0			2,0	9,0	0,5	0,02

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1992

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O\text{-}N/kg\ N$)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	712								Anaerobic lagoon	0,000
Dairy Cattle	1.478								Liquid system	0,000
Sheep	267								Solid storage and dry lot	0,000
Swine	16.474								Other	0,000
Poultry	35.527									
Other *(please specify)*										
Total per AWMS[2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1992

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[1]

1992

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**17,54**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	369.500.000	(kg N2O-N/kg N)[2]	0,012	7,11
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	256.300.000	(kg N2O-N/kg N)[2]	0,009	3,61
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	32.200.000	(kg N2O-N/kg dry biomass)[2]	0,013	0,63
Crop Residue	Dry production of other crops (kg dry biomass/yr)	307.700.000	(kg N2O-N/kg dry biomass)[2]	0,013	6,04
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[2]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**43.000.000**	**(kg N2O-N/kg N)[2]**	**0,019**	**1,26**
Indirect Emissions					**9,83**
Atmospheric Deposition	(kg N/yr)	82.932.900	(kg N2O-N/kg N)[2]	0,010	1,30
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	217.000.000	(kg N2O-N/kg N)[2]	0,025	8,53
Other *(please specify)*					**0,14**
Sewage sludge used as fertilizer	(kg N/yr)	7.100.000	(kg N2O-N/kg N)[2]	0,013	0,14
Industrial waste used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[2]	0,000	
				0,000	

Additional information

Fraction [a]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,14
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,32
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[a] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[1] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[2] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1992

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:

According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.121,00**	**-3.121,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.121,00**	**-3.121,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-3,00	-3,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-3,00	-3,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1992

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

	Climate [a]	land-use/ management system [a]	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
Year			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**64,80**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**64,80**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	64,80		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	2.889,60				0,02	#VALUE!	64,80	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

(1) Actual emissions (after recovery).

(2) CH_4 recovered and flared or utilized.

(3) Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

(a) Specify whether total or urban population is used and the rationale for doing so.

(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

(c) For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**57.563,25**	**-3.121,00**	**273,07**	**32,48**	**26,42**	**3,64**	**0,00**	**0,00**	**0,01**	**0,00**	**275,18**	**745,30**	**171,32**	**186,02**
1. Energy		**56.141,54**		**15,79**	**2,16**							**275,18**	**745,30**	**119,52**	**186,02**
A. Fuel Combustion	Reference Approach [2]	55.235,23													
	Sectoral Approach [2]	55.630,76		10,27	2,15							272,41	703,02	111,59	186,02
1. Energy Industries		30.126,95		2,13	1,02							93,54	9,50	1,59	143,71
2. Manufacturing Industries and Construction		5.872,64		0,87	0,18							21,92	14,55	4,20	21,87
3. Transport		11.020,82		3,11	0,61							115,15	487,97	86,30	7,46
4. Other Sectors		8.469,57		4,16	0,33							40,79	190,49	19,39	12,91
5. Other		140,79		0,01	0,01							1,01	0,50	0,11	0,06
B. Fugitive Emissions from Fuels		510,78		5,52	0,01							2,76	42,28	7,93	0,00
1. Solid Fuels		0,00		3,91	0,00							0,00	40,48	0,00	0,00
2. Oil and Natural Gas		510,78		1,61	0,01							2,76	1,80	7,93	0,00
2. Industrial Processes		**1.300,49**		**0,00**	**0,00**	**26,42**	**3,64**	**0,00**	**0,00**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products		1.300,49		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production		0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production [3]		0,00										0,00	0,00	0,00	0,00
E. Production of Halocarbons and SF_6							0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6						26,42	3,64	0,00	0,00	0,01	0,00				
G. Other		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**121,22**			**0,00**									**41,44**	
4. Agriculture	**0,00**	**0,00**	**192,49**	**30,32**							0,00	0,00	1,05	0,00
A. Enteric Fermentation			148,34											
B. Manure Management			44,14	1,55									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	28,77									1,05	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.121,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.121,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,31	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**64,80**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		64,80									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**4.590,04**		**0,09**	**0,24**							**86,16**	**8,12**	**2,41**	**37,68**
Aviation	1.694,63		0,03	0,06							6,87	1,38	0,29	0,05
Marine	2.895,41		0,07	0,18							79,29	6,74	2,12	37,63
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**5.319,17**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**57.563,25**	**-3.121,00**	**273,07**	**32,48**	**26,42**	**3,64**	**0,00**	**0,00**	**0,01**	**0,00**	**275,18**	**745,30**	**171,32**	**186,02**
1. Energy		**56.141,54**		**15,79**	**2,16**							**275,18**	**745,30**	**119,52**	**186,02**
A. Fuel Combustion	Reference Approach[2]	55.235,23													
	Sectoral Approach[2]	55.630,76		10,27	2,15							272,41	703,02	111,59	186,02
B. Fugitive Emissions from Fuels		510,78		5,52	0,01							2,76	42,28	7,93	0,00
2. Industrial Processes		**1.300,49**		**0,00**	**0,00**	**26,42**	**3,64**	**0,00**	**0,00**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
3. Solvent and Other Product Use		**121,22**			**0,00**							**0,00**	**0,00**	**41,44**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**192,49**	**30,32**							**0,00**	**0,00**	**1,05**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.121,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
6. Waste		**0,00**		**64,80**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**4.590,04**		**0,09**	**0,24**							**86,16**	**8,12**	**2,41**	**37,68**
Aviation		1.694,63		0,03	0,06							6,87	1,38	0,29	0,05
Marine		2.895,41		0,07	0,18							79,29	6,74	2,12	37,63
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.319,17**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**54.442,25**	**5.734,57**	**10.068,02**	**3,64**	**0,00**	**89,15**	**70.337,63**
1. Energy	**56.141,54**	**331,58**	**669,03**				**57.142,15**
A. Fuel Combustion (Sectoral Approach)	55.630,76	215,70	666,24				56.512,71
1. Energy Industries	30.126,95	44,64	316,61				30.488,20
2. Manufacturing Industries and Construction	5.872,64	18,17	55,83				5.946,64
3. Transport	11.020,82	65,38	188,51				11.274,71
4. Other Sectors	8.469,57	87,32	103,36				8.660,25
5. Other	140,79	0,19	1,92				142,90
B. Fugitive Emissions from Fuels	510,78	115,88	2,78				629,44
1. Solid Fuels	0,00	82,01	0,00				82,01
2. Oil and Natural Gas	510,78	33,87	2,78				547,43
2. Industrial Processes	**1.300,49**	**0,00**	**0,00**	**3,64**	**0,00**	**89,15**	**1.393,28**
A. Mineral Products	1.300,49	0,00	0,00				1.300,49
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	31,07	31,07
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				3,64	0,00	58,08	61,72
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**121,22**		**0,00**				**121,22**
4. Agriculture	**0,00**	**4.042,19**	**9.399,00**				**13.441,19**
A. Enteric Fermentation		3.115,23					3.115,23
B. Manure Management		926,96	480,73				1.407,69
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.918,27				8.918,27
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.121,00**	**0,00**	**0,00**				**-3.121,00**
6. Waste	**0,00**	**1.360,80**	**0,00**				1.360,80
A. Solid Waste Disposal on Land	0,00	1.360,80					1.360,80
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**4.590,04**	**1,95**	**74,42**				**4.666,41**
Aviation	1.694,63	0,57	17,92				1.713,12
Marine	2.895,41	1,38	56,50				2.953,29
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**5.319,17**						**5.319,17**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.121,00	-3.121,00			-3.121,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.121,00	-3.121,00	0,00	0,00	-3.121,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	73.458,63
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	70.337,63

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA Denmark

Recalculated year: 2003 1992

(Sheet 1 of 2) 2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**56.602,31**	**54.442,25**	**-3,82**	**5.914,72**	**5.734,57**	**-3,05**	**10.060,34**	**10.068,02**	**0,08**
1. Energy		**56.101,60**	**56.141,54**	**0,07**	**555,85**	**331,58**	**-40,35**	**661,35**	**669,03**	**1,16**
1.A.	Fuel Combustion Activities	55.590,82	55.630,76	0,07	264,26	215,70	-18,38	658,56	666,24	1,17
1.A.1.	Energy Industries	30.126,95	30.126,95	0,00	44,45	44,64	0,43	311,88	316,61	1,52
1.A.2.	Manufacturing Industries and Construction	5.872,64	5.872,64	0,00	16,15	18,17	12,45	55,80	55,83	0,06
1.A.3.	Transport	11.006,50	11.020,82	0,13	65,02	65,38	0,56	190,62	188,51	-1,11
1.A.4.	Other Sectors	8.443,95	8.469,57	0,30	138,47	87,32	-36,94	98,14	103,36	5,32
1.A.5.	Other	140,79	140,79	0,00	0,17	0,19	11,81	2,12	1,92	-9,24
1.B.	Fugitive Emissions from Fuels	510,78	510,78	0,00	291,59	115,88	-60,26	2,78	2,78	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	82,78	82,01	-0,94	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	510,78	510,78	0,00	208,81	33,87	-83,78	2,78	2,78	0,00
2. Industrial Processes		**1.300,49**	**1.300,49**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.300,49	1.300,49	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**121,22**	**121,22**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.998,07**	**4.042,19**	**1,10**	**9.399,00**	**9.399,00**	**0,00**
4.A.	Enteric Fermentation				3.073,65	3.115,23	1,35			
4.B.	Manure Management				924,42	926,96	0,27	480,73	480,73	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	8.918,27	8.918,27	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-921,00**	**-3.121,00**	**238,87**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-921,00	-3.121,00	238,87						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.360,80**	**1.360,80**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.360,80	1.360,80	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**4.604,46**	**4.590,04**	**-0,31**	**2,13**	**1,95**	**-8,64**	**74,66**	**74,42**	**-0,32**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.319,17**	**5.319,17**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**3,64**	**3,64**	**0,00**	**0,00**	**0,00**	**0,00**	**89,15**	**89,15**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	31,07	31,07	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	3,64	3,64	0,00	0,00	0,00	0,00	58,08	58,08	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**26,42**	**26,42**		**0,00**	**0,00**		**327,43**	**327,43**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	72.670,16	70.337,63	-3,21
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	73.591,16	73.458,63	-0,18

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1992
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1992
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	
CH_4	Waste Incineration non biogenic	6.C	1.A1a	
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	
N_2O	Waste Incineration non biogenic	6.C	1.A1a	
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1992
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1992

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	0,04	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1993

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**58.491,69**	**17,46**	**2,28**	**275,88**	**748,72**	**117,32**	**152,12**
A. Fuel Combustion Activities (Sectoral Approach)	**58.046,79**	**11,15**	**2,27**	**273,47**	**711,67**	**109,28**	**152,12**
1. Energy Industries	**31.688,59**	**2,61**	**1,07**	**97,87**	**9,29**	**1,74**	**112,75**
a. Public Electricity and Heat Production	29.937,02	2,50	1,03	93,24	8,66	1,64	105,22
b. Petroleum Refining	1.132,17	0,04	0,04	2,03	0,33	0,07	7,53
c. Manufacture of Solid Fuels and Other Energy Industries	619,40	0,07	0,01	2,59	0,30	0,02	0,00
2. Manufacturing Industries and Construction	**5.803,92**	**0,89**	**0,18**	**21,58**	**14,18**	**4,14**	**20,87**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	5.803,92	0,89	0,18	21,58	14,18	4,14	20,87
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				21,58	14,18	4,14	20,87
3. Transport	**11.202,18**	**3,37**	**0,67**	**114,61**	**493,18**	**83,97**	**5,31**
a. Civil Aviation	188,52	0,01	0,01	0,89	0,94	0,16	0,01
b. Road Transportation	10.052,07	3,28	0,61	99,86	481,94	78,25	1,57
c. Railways	331,35	0,02	0,01	3,09	0,46	0,19	0,10
d. Navigation	630,24	0,06	0,04	10,76	9,84	5,37	3,63
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**9.114,97**	**4,26**	**0,34**	**38,12**	**194,19**	**19,29**	**13,16**
a. Commercial/Institutional	1.316,33	0,19	0,04	1,26	0,82	0,20	1,31
b. Residential	5.512,79	3,22	0,19	5,30	171,21	12,48	6,68
c. Agriculture/Forestry/Fisheries	2.285,84	0,85	0,11	31,56	22,16	6,61	5,17
5. Other *(please specify)* [1]	**237,13**	**0,01**	**0,01**	**1,30**	**0,83**	**0,15**	**0,03**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	237,13	0,01	0,01	1,30	0,83	0,15	0,03
Emissions from military combustion of fuels	237,13	0,01	0,01	1,30	0,83	0,15	0,03
B. Fugitive Emissions from Fuels	**444,90**	**6,32**	**0,01**	**2,41**	**37,05**	**8,04**	**0,00**
1. Solid Fuels	**0,00**	**4,79**	**0,00**	**0,00**	**35,48**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	4,79	0,00	0,00	35,48	0,00	0,00
Storage of solid fluid					35,48		
2. Oil and Natural Gas	**444,90**	**1,52**	**0,01**	**2,41**	**1,56**	**8,04**	**0,00**
a. Oil	0,00	0,04				7,29	
b. Natural Gas	0,00	0,22				0,07	
c. Venting and Flaring	444,90	1,26	0,01	2,41	1,56	0,68	0,00
Venting	0,00	0,00					
Flaring	444,90	1,26	0,01	2,41	1,56	0,68	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**5.972,81**	**0,12**	**0,33**	**124,70**	**11,41**	**3,44**	**65,69**
Aviation	1.660,36	0,03	0,06	6,73	1,37	0,28	0,05
Marine	4.312,45	0,10	0,27	117,98	10,04	3,16	65,64
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**5.566,90**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**770.516,05**	NCV				**58.046,79**	**11,15**	**2,27**
Liquid Fuels	308.758,52	NCV	74,52	13,14	3,38	23.008,39	4,06	1,04
Solid Fuels	302.081,60	NCV	95,00	2,49	3,00	28.697,75	0,75	0,91
Gaseous Fuels	103.173,35	NCV	56,90	20,22	1,00	5.870,56	2,09	0,10
Biomass	56.040,00	NCV	99,34	74,95	3,96 [3]	5.566,90	4,20	0,22
Other Fuels	462,58	NCV	1.016,22	105,79	0,66	470,08	0,05	0,00
1.A.1. Energy Industries	**383.911,20**	NCV				**31.688,59**	**2,61**	**1,07**
Liquid Fuels	31.584,30	NCV	68,56	2,92	2,04	2.165,31	0,09	0,06
Solid Fuels	283.530,00	NCV	95,00	1,67	3,00	26.935,35	0,47	0,85
Gaseous Fuels	38.223,80	NCV	56,90	41,61	1,00	2.174,93	1,59	0,04
Biomass	30.573,10	NCV	97,58	14,90	3,96 [3]	2.983,39	0,46	0,12
Other Fuels	0,00	NCV	0,00	0,00	0,00	413,00	0,00	0,00
a. Public Electricity and Heat Production	354.430,90	NCV				29.937,02	2,50	1,03
Liquid Fuels	12.989,80	NCV	79,54	3,98	2,10	1.033,15	0,05	0,03
Solid Fuels	283.530,00	NCV	95,00	1,67	3,00	26.935,35	0,47	0,85
Gaseous Fuels	27.338,00	NCV	56,90	55,62	1,00	1.555,53	1,52	0,03
Biomass	30.573,10	NCV	97,58	14,90	3,96 [3]	2.983,39	0,46	0,12
Other Fuels	0,00	NCV	0,00	0,00	0,00	413,00	0,00	0,00
b. Petroleum Refining	18.594,50	NCV				1.132,17	0,04	0,04
Liquid Fuels	18.594,50	NCV	60,89	2,19	2,00	1.132,17	0,04	0,04
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	10.885,80	NCV				619,40	0,07	0,01
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	10.885,80	NCV	56,90	6,43	1,00	619,40	0,07	0,01
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**84.955,67**	NCV					**5.803,92**	**0,89**	**0,18**
Liquid Fuels	35.275,81	NCV	77,95	8,01	2,24		2.749,91	0,28	0,08
Solid Fuels	15.392,00	NCV	95,00	15,00	3,00		1.462,24	0,23	0,05
Gaseous Fuels	27.974,85	NCV	56,90	6,08	1,00		1.591,77	0,17	0,03
Biomass	6.313,00	NCV	101,97	31,96	4,00	[3]	643,74	0,20	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	84.955,67	NCV					5.803,92	0,89	0,18
Liquid Fuels	35.275,81	NCV	77,95	8,01	2,24		2.749,91	0,28	0,08
Solid Fuels	15.392,00	NCV	95,00	15,00	3,00		1.462,24	0,23	0,05
Gaseous Fuels	27.974,85	NCV	56,90	6,08	1,00		1.591,77	0,17	0,03
Biomass	6.313,00	NCV	101,97	31,96	4,00	[3]	643,74	0,20	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**152.359,80**	NCV					**11.202,18**	**3,37**	**0,67**
Gasoline	79.967,35	NCV	72,97	36,74	4,38		5.835,10	2,94	0,35
Diesel	71.929,87	NCV	74,15	5,37	4,44		5.333,41	0,39	0,32
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	462,58	NCV	72,78	105,79	0,66		33,67	0,05	0,00
a. Civil Aviation	2.616,93	NCV					188,52	0,01	0,01
Aviation Gasoline	98,35	NCV	73,00	21,90	2,00		7,18	0,00	0,00
Jet Kerosene	2.518,59	NCV	72,00	1,50	3,48		181,34	0,00	0,01
b. Road Transportation	136.885,57	NCV					10.052,07	3,28	0,61
Gasoline	77.350,41	NCV	73,00	37,90	4,42		5.646,58	2,93	0,34
Diesel Oil	59.522,31	NCV	74,00	5,89	4,59		4.404,65	0,35	0,27
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	12,84	NCV					0,83	0,00	0,00
	12,84	NCV	65,00	25,07	5,68		0,83	0,00	0,00
c. Railways	4.477,76	NCV					331,35	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.477,76	NCV	74,00	4,76	2,04		331,35	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	8.379,53	NCV					630,24	0,06	0,04
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	2.651,29	NCV	78,00	1,76	4,89		206,80	0,00	0,01
Gas/Diesel Oil	5.278,50	NCV	74,00	1,84	4,59		390,61	0,01	0,02
Other Fuels *(please specify)*	449,74	NCV					32,83	0,05	0,00
	449,74	NCV	73,00	108,10	0,52		32,83	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**149.289,38**	NCV					**9.114,97**	**4,26**	**0,34**
Liquid Fuels	90.001,18	NCV	74,30	3,85	2,45		6.687,52	0,35	0,22
Solid Fuels	3.159,60	NCV	95,00	15,00	3,00		300,16	0,05	0,01
Gaseous Fuels	36.974,70	NCV	56,90	8,80	1,00		2.103,86	0,33	0,04
Biomass	19.153,90	NCV	101,27	184,99	3,96 [3]		1.939,76	3,54	0,08
Other Fuels	0,00	NCV	0,00	0,00	0,00		23,42	0,00	0,00
a. Commercial/Institutional	21.306,70	NCV					1.316,33	0,19	0,04
Liquid Fuels	9.931,40	NCV	74,33	1,81	2,01		738,21	0,02	0,02
Solid Fuels	84,10	NCV	95,00	14,99	3,00		7,99	0,00	0,00
Gaseous Fuels	9.608,20	NCV	56,90	12,54	1,00		546,71	0,12	0,01
Biomass	1.683,00	NCV	93,72	29,12	3,55 [3]		157,73	0,05	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		23,42	0,00	0,00
b. Residential	94.197,44	NCV					5.512,79	3,22	0,19
Liquid Fuels	54.085,44	NCV	74,06	3,80	2,01		4.005,78	0,21	0,11
Solid Fuels	947,10	NCV	95,00	15,00	3,00		89,97	0,01	0,00
Gaseous Fuels	24.904,00	NCV	56,90	6,07	1,00		1.417,04	0,15	0,02
Biomass	14.260,90	NCV	102,00	200,00	4,00 [3]		1.454,61	2,85	0,06
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	33.785,24	NCV					2.285,84	0,85	0,11
Liquid Fuels	25.984,34	NCV	74,80	4,74	3,55		1.943,53	0,12	0,09
Solid Fuels	2.128,40	NCV	95,00	15,00	3,00		202,20	0,03	0,01
Gaseous Fuels	2.462,50	NCV	56,90	21,82	1,00		140,12	0,05	0,00
Biomass	3.210,00	NCV	102,00	200,00	4,00 [3]		327,42	0,64	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**237,13**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		237,13	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	353.741,00	215.693,00	218.422,00		-5.578,00	356.590,00	1,00	NCV	356.590,00	20,00	7.131,80		7.131,80	1,00	26.149,93
		Orimulsion	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	22,00	0,00		0,00	1,00	0,00
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		39.361,00	30.125,00	8,00	-5.955,00	15.183,00	1,00	NCV	15.183,00	18,90	286,96		286,96	1,00	1.052,18
		Jet Kerosene	TJ		24.800,00	5.971,00	23.365,00	-753,00	-3.783,00	1,00	NCV	-3.783,00	19,50	-73,77		-73,77	1,00	-270,48
		Other Kerosene	TJ		87,00	0,00	0,00	-244,00	331,00	1,00	NCV	331,00	19,60	6,49		6,49	1,00	23,79
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		73.006,00	68.152,00	19.114,00	-11.694,00	-2.566,00	1,00	NCV	-2.566,00	20,20	-51,83	0,00	-51,83	1,00	-190,06
		Residual Fuel Oil	TJ		34.739,00	55.862,00	36.988,00	5.004,00	-63.115,00	1,00	NCV	-63.115,00	21,10	-1.331,73		-1.331,73	1,00	-4.883,00
		LPG	TJ		927,00	3.220,00		38,00	-2.331,00	1,00	NCV	-2.331,00	17,20	-40,09	0,00	-40,09	1,00	-147,01
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.036,00	6.546,00		87,00	-5.597,00	1,00	NCV	-5.597,00	20,00	-111,94	15,42	-127,36	1,00	-466,99
		Bitumen	TJ		9.039,00	243,00		-216,00	9.012,00	1,00	NCV	9.012,00	22,00	198,26	198,18	0,09	1,00	0,32
		Lubricants	TJ		3.085,00	553,00	166,00	-190,00	2.556,00	1,00	NCV	2.556,00	20,00	51,12	26,82	24,30	1,00	89,10
		Petroleum Coke	TJ		8.534,00	1.693,00		1.116,00	5.725,00	1,00	NCV	5.725,00	27,50	157,44		157,44	1,00	577,27
		Refinery Feedstocks	TJ		13.512,00	2.710,00		225,00	10.577,00	1,00	NCV	10.577,00	20,00	211,54		211,54	1,00	775,65
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												322.582,00		6.434,25	240,42	6.193,83		22.710,71
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	264.727,00	637,00	0,00	-34.570,00	298.660,00	1,00	NCV	298.660,00	25,80	7.705,43		7.705,43	1,00	28.253,24
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	86,00	30,00		-4,00	60,00	1,00	NCV	60,00	27,60	1,66		1,66	1,00	6,07
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.177,00	0,00		27,00	1.150,00	1,00	NCV	1.150,00	29,50	33,93		33,93	1,00	124,39
Solid Fuel Totals												299.870,00		7.741,01	0,00	7.741,01		28.383,70
Gaseous Fossil		Natural Gas (Dry)	TJ	167.791,00	0,00	60.425,00		4.533,00	102.833,00	1,00	NCV	102.833,00	15,30	1.573,34	0,00	1.573,34	1,00	5.768,93
Total												**725.285,00**		**15.748,60**	**240,42**	**15.508,18**		**56.863,34**
Biomass total												56.873,00		1.684,94	0,00	1.684,94		6.178,10
		Solid Biomass	TJ	54.996,00	0,00	0,00		0,00	54.996,00	1,00	NCV	54.996,00	29,90	1.644,38		1.644,38	1,00	6.029,39
		Liquid Biomass	TJ	800,00	0,00	0,00		0,00	800,00	1,00	NCV	800,00	20,00	16,00		16,00	1,00	58,67
		Gas Biomass	TJ	1.077,00	0,00	0,00		0,00	1.077,00	1,00	NCV	1.077,00	22,80	24,56		24,56	1,00	90,04

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	322,58	22.710,71	308,76	23.008,39	4,48	-1,29
Solid Fuels (excluding international bunkers)	299,87	28.383,70	302,08	28.697,75	-0,73	-1,09
Gaseous Fuels	102,83	5.768,93	103,17	5.870,56	-0,33	-1,73
Other [3]	-12,72	436,42	0,46	470,08	-2.849,34	-7,16
Total [3]	**712,57**	**57.299,76**	**714,48**	**58.046,79**	**-0,27**	**-1,29**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)
CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.028,00	0,75	20,00	15,42
Lubricants	2.682,00	0,50	20,00	26,82
Bitumen	9.008,00	1,00	22,00	198,18
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
56,54	
98,34	
726,65	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				4,79	0,00
	10,47	0,46	0,00	4,79	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,04**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		8.356.000,00	0,00	0,01			0,04	
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	1.924.772	0,00	0,00				
vi. Other		Mg Crude	0	0,00	0,00				
1. B. 2. b. Natural Gas							**0,00**	**0,22**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	0	0,00	0,00				
ii. Transmission	*Gas produced and stock change*	Mm3 gas	6.177	0,00	35,29			0,22	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**444,90**	**1,26**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	0	0,00	0,00	0,00			
ii. Gas	*(e.g. PJ gas consumption)*	GJ	7.819.064	56,90	0,16	0,00	444,90	1,26	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**56.268,05**				**4.312,45**	**0,10**	**0,27**
Gasoline	0,13	73,00	106,54	0,00	0,01	0,00	0,00
Gas/Diesel Oil	19.114,20	74,00	1,69	4,68	1.414,45	0,03	0,09
Residual Fuel Oil	37.153,71	78,00	1,76	4,89	2.897,99	0,07	0,18
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**23.060,08**				**1.660,36**	**0,03**	**0,06**
Jet Kerosene	23.026,32	72,00	1,12	2,48	1.657,89	0,03	0,06
Gasoline	33,76	73,00	21,89	2,01	2,46	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	12,96	87,04
Aviation	10,19	89,81

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.310,99**	**0,00**	**0,00**	**408,50**	**95,66**	**0,00**	**0,00**	**0,02**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products	**1.310,99**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.205,20												
2. Lime Production	105,78												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00										
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,00**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00												
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**408,50**	**95,66**	**0,00**	**0,00**	**0,02**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				126,10	5,14	0,00	0,00		0,00				
2. Foam Blowing				282,40	90,52		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1993

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.310,99**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.244,33	0,54			1.205,20					
2. Lime Production	Production of Lime and Brigs	385,12	0,27			105,78					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		0,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1993

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		0,00	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**70,35**	**30,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**5,63**
C. Metal Production															**0,00**	**0,00**							**2,00**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							2,00
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**70,35**	**30,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**3,64**
1. Refrigeration and Air Conditioning Equipment							3,95										0,00						
2. Foam Blowing							66,40	30,00															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,16
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		3,48
																							3,48
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**91,46**	**4,20**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**95,66**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**134,60**
C. Metal Production															0,00	0,00						0,00	47,70
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	91,46	4,20	0,00	0,00	0,00	0,00	0,00	95,66	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	86,90
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	91,46	4,20	0,00	0,00	0,00	0,00	0,00	95,66	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	86,90
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

1993

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				2,00	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	2,00	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Consumption of Halocarbons and SF_6

(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134a	57,00	29,58		2,00	1,00	0,00	1,14	0,10	0,00
Commercial Refrigeration									
Transport Refrigeration									
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
2 Foam Blowing									
Hard Foam									
Soft Foam									

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1993

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,82	13,78	0,00	5,00	0,50	5,00	0,09	0,07	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	17,68	16,79	0,00	15,00	1,00	65,00	2,65	0,09	0,00
SF6 (laboratories)	0,52	0,00	0,00	100,00	0,00	0,00	0,68	0,00	0,00
SF6 (running shoes)	0,00	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**125,49**	**0,00**	**42,76**
A. Paint Application	**77,13**		**24,75**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,50**
D. Other *(please specify)*	48,36	0,00	15,52
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	48,36		15,52

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**196,79**	**30,60**	**0,00**	**0,00**	**1,02**
A. Enteric Fermentation	**150,20**				
1. Cattle	129,08				
Dairy Cattle	74,27				
Non-Dairy Cattle	54,81				
2. Buffalo	NO				
3. Sheep	1,26				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,51				
7. Mules and Asses	NO				
8. Swine	17,35				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**46,59**	**1,60**			**0,00**
1. Cattle	17,27				
Dairy Cattle	14,90				
Non-Dairy Cattle	2,37				
2. Buffalo	NO				
3. Sheep	0,07				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,15				
7. Mules and Asses	NO				
8. Swine	28,35				
9. Poultry	0,74				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,23			NE
12. Solid Storage and Dry Lot		1,37			NE
13. Other *(please specify)*		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)*	0,00				0,00
D. Agricultural Soils [(1)]	**0,00**	**29,00**			**1,02**
1. Direct Soil Emissions	NE	17,99			1,02
2. Animal Production	NE	1,22			NE
3. Indirect Emissions	NE	9,60			NE
4. Other *(please specify)*	0,00	0,19			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)*	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[(1)] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size[2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	714	264,7	6,00	104,00
Non-Dairy Cattle	1.481	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	157			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	140			18,00
7. Mules and Asses				0,00
8. Swine	11.568			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals[b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation[c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	714	100,0			550,0	2.115,0	0,2	20,87
Non-Dairy Cattle	1.481	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	157	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	140	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	11.568	100,0			76,0	110,0	0,5	2,45
9. Poultry	24.121	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1993

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1) (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	714								Anaerobic lagoon	0,000
Dairy Cattle	1.481								Liquid system	0,000
Sheep	231								Solid storage and dry lot	0,000
Swine	18.451								Other	0,000
Poultry	24.121									
Other *(please specify)*										
Total per AWMS(2)			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

(1) See footnote 1 to Table 4.A of this common reporting format.

(2) AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1993

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[1]

1993

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**17,99**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	332.900.000	(kg N2O-N/kg N)[2]	0,012	6,41
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	264.600.000	(kg N2O-N/kg N)[2]	0,009	3,73
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	35.400.000	(kg N2O-N/kg dry biomass)[2]	0,013	0,70
Crop Residue	Dry production of other crops (kg dry biomass/yr)	357.100.000	(kg N2O-N/kg dry biomass)[2]	0,013	7,01
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[2]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**41.700.000**	**(kg N2O-N/kg N)[2]**	**0,019**	**1,22**
Indirect Emissions					**9,60**
Atmospheric Deposition	(kg N/yr)	84.458.800	(kg N2O-N/kg N)[2]	0,010	1,33
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	210.500.000	(kg N2O-N/kg N)[2]	0,025	8,27
Other *(please specify)*					**0,19**
Sewage sludge used as fertilizer	(kg N/yr)	9.700.000	(kg N2O-N/kg N)[2]	0,013	0,19
Industrial waste used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[2]	0,000	
				0,000	

Additional information

Fraction [a]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,14
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,33
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[a] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[1] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[2] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1993

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:

According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.123,00**	**-3.123,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.123,00**	**-3.123,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-5,00	-5,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-5,00	-5,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1993

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

Year	Climate [a]	land-use/ management system [a]	Soil type: High activity soils (percent distribution (%))	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**64,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**64,70**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	64,70		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	2.746,80				0,02	#VALUE!	64,70	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

[1] Actual emissions (after recovery).

[2] CH_4 recovered and flared or utilized.

[3] Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.

[b] See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

[c] For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**59.928,16**	**-3.123,00**	**278,96**	**32,88**	**408,50**	**95,66**	**0,00**	**0,00**	**0,02**	**0,01**	**275,88**	**748,72**	**170,42**	**152,12**
1. Energy		**58.491,69**		**17,46**	**2,28**							**275,88**	**748,72**	**117,32**	**152,12**
A. Fuel Combustion	Reference Approach[2]	56.863,34													
	Sectoral Approach[2]	58.046,79		11,15	2,27							273,47	711,67	109,28	152,12
1. Energy Industries		31.688,59		2,61	1,07							97,87	9,29	1,74	112,75
2. Manufacturing Industries and Construction		5.803,92		0,89	0,18							21,58	14,18	4,14	20,87
3. Transport		11.202,18		3,37	0,67							114,61	493,18	83,97	5,31
4. Other Sectors		9.114,97		4,26	0,34							38,12	194,19	19,29	13,16
5. Other		237,13		0,01	0,01							1,30	0,83	0,15	0,03
B. Fugitive Emissions from Fuels		444,90		6,32	0,01							2,41	37,05	8,04	0,00
1. Solid Fuels		0,00		4,79	0,00							0,00	35,48	0,00	0,00
2. Oil and Natural Gas		444,90		1,52	0,01							2,41	1,56	8,04	0,00
2. Industrial Processes		**1.310,99**		**0,00**	**0,00**	**408,50**	**95,66**	**0,00**	**0,00**	**0,02**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products		1.310,99		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production		0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]		0,00										0,00	0,00	0,00	0,00
E. Production of Halocarbons and SF_6							0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6						408,50	95,66	0,00	0,00	0,02	0,00				
G. Other		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**125,49**			**0,00**									**42,76**	
4. Agriculture	**0,00**	**0,00**	**196,79**	**30,60**							0,00	0,00	1,02	0,00
A. Enteric Fermentation			150,20											
B. Manure Management			46,59	1,60									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	29,00									1,02	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.123,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.123,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,31	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**64,70**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		64,70									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
Memo Items: [7]														
International Bunkers	**5.972,81**		**0,12**	**0,33**							**124,70**	**11,41**	**3,44**	**65,69**
Aviation	1.660,36		0,03	0,06							6,73	1,37	0,28	0,05
Marine	4.312,45		0,10	0,27							117,98	10,04	3,16	65,64
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**5.566,90**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**59.928,16**	**-3.123,00**	**278,96**	**32,88**	**408,50**	**95,66**	**0,00**	**0,00**	**0,02**	**0,01**	**275,88**	**748,72**	**170,42**	**152,12**
1. Energy		**58.491,69**		**17,46**	**2,28**							**275,88**	**748,72**	**117,32**	**152,12**
A. Fuel Combustion	Reference Approach[2]	56.863,34													
	Sectoral Approach[2]	58.046,79		11,15	2,27							273,47	711,67	109,28	152,12
B. Fugitive Emissions from Fuels		444,90		6,32	0,01							2,41	37,05	8,04	0,00
2. Industrial Processes		**1.310,99**		**0,00**	**0,00**	**408,50**	**95,66**	**0,00**	**0,00**	**0,02**	**0,01**	**0,00**	**0,00**	**0,00**	**0,00**
3. Solvent and Other Product Use		**125,49**			**0,00**							**0,00**	**0,00**	**42,76**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**196,79**	**30,60**							**0,00**	**0,00**	**1,02**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.123,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
6. Waste		**0,00**		**64,70**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**5.972,81**		**0,12**	**0,33**							**124,70**	**11,41**	**3,44**	**65,69**
Aviation		1.660,36		0,03	0,06							6,73	1,37	0,28	0,05
Marine		4.312,45		0,10	0,27							117,98	10,04	3,16	65,64
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.566,90**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**56.805,16**	**5.858,06**	**10.192,67**	**95,66**	**0,00**	**134,60**	**73.086,16**
1. Energy	**58.491,69**	**366,71**	**707,66**				**59.566,06**
A. Fuel Combustion (Sectoral Approach)	58.046,79	234,05	705,23				58.986,07
1. Energy Industries	31.688,59	54,85	332,98				32.076,43
2. Manufacturing Industries and Construction	5.803,92	18,59	55,32				5.877,84
3. Transport	11.202,18	70,83	207,77				11.480,78
4. Other Sectors	9.114,97	89,52	106,33				9.310,81
5. Other	237,13	0,26	2,83				240,22
B. Fugitive Emissions from Fuels	444,90	132,66	2,42				579,99
1. Solid Fuels	0,00	100,67	0,00				100,67
2. Oil and Natural Gas	444,90	31,99	2,42				479,32
2. Industrial Processes	**1.310,99**	**0,00**	**0,00**	**95,66**	**0,00**	**134,60**	**1.541,25**
A. Mineral Products	1.310,99	0,00	0,00				1.310,99
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	47,70	47,70
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				95,66	0,00	86,90	182,56
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**125,49**		**0,00**				**125,49**
4. Agriculture	**0,00**	**4.132,65**	**9.485,02**				**13.617,66**
A. Enteric Fermentation		3.154,20					3.154,20
B. Manure Management		978,45	496,29				1.474,74
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.988,72				8.988,72
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.123,00**	**0,00**	**0,00**				**-3.123,00**
6. Waste	**0,00**	**1.358,70**	**0,00**				1.358,70
A. Solid Waste Disposal on Land	0,00	1.358,70					1.358,70
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**5.972,81**	**2,61**	**101,82**				**6.077,24**
Aviation	1.660,36	0,55	17,75				1.678,66
Marine	4.312,45	2,05	84,07				4.398,58
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**5.566,90**						**5.566,90**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.123,00	-3.123,00			-3.123,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.123,00	-3.123,00	0,00	0,00	-3.123,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	76.209,16
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	73.086,16

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks																				
B. Forest and Grassland Conversion	ALL	M																		

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**58.959,67**	**56.805,16**	**-3,65**	**6.034,12**	**5.858,06**	**-2,92**	**10.183,53**	**10.192,67**	**0,09**
1. Energy		**58.447,19**	**58.491,69**	**0,08**	**590,52**	**366,71**	**-37,90**	**698,52**	**707,66**	**1,31**
1.A.	Fuel Combustion Activities	58.002,29	58.046,79	0,08	286,19	234,05	-18,22	696,09	705,23	1,31
1.A.1.	Energy Industries	31.688,59	31.688,59	0,00	54,47	54,85	0,70	328,03	332,98	1,51
1.A.2.	Manufacturing Industries and Construction	5.803,92	5.803,92	0,00	16,47	18,59	12,85	55,29	55,32	0,07
1.A.3.	Transport	11.183,30	11.202,18	0,17	70,35	70,83	0,69	208,86	207,77	-0,52
1.A.4.	Other Sectors	9.089,34	9.114,97	0,28	144,66	89,52	-38,12	100,91	106,33	5,37
1.A.5.	Other	237,13	237,13	0,00	0,24	0,26	7,35	3,00	2,83	-5,87
1.B.	Fugitive Emissions from Fuels	444,90	444,90	0,00	304,33	132,66	-56,41	2,42	2,42	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	99,44	100,67	1,24	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	444,90	444,90	0,00	204,89	31,99	-84,39	2,42	2,42	0,00
2. Industrial Processes		**1.310,99**	**1.310,99**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.310,99	1.310,99	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**125,49**	**125,49**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**4.084,89**	**4.132,65**	**1,17**	**9.485,02**	**9.485,02**	**0,00**
4.A.	Enteric Fermentation				3.109,20	3.154,20	1,45			
4.B.	Manure Management				975,70	978,45	0,28	496,29	496,29	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	8.988,72	8.988,72	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-924,00**	**-3.123,00**	**237,99**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-924,00	-3.123,00	237,99						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.358,70**	**1.358,70**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.358,70	1.358,70	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**5.994,25**	**5.972,81**	**-0,36**	**2,79**	**2,61**	**-6,66**	**102,12**	**101,82**	**-0,29**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.566,90**	**5.566,90**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**95,66**	**95,66**	**0,00**	**0,00**	**0,00**	**0,00**	**134,60**	**134,60**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	47,70	47,70	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	95,66	95,66	0,00	0,00	0,00	0,00	86,90	86,90	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**408,50**	**408,50**		**0,00**	**0,00**		**370,45**	**370,45**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	75.407,58	73.086,16	-3,08
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	76.331,58	76.209,16	-0,16

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1993
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1993
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1993
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1993

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	-1,29	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1994

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**62.482,05**	**25,33**	**2,50**	**280,72**	**720,21**	**115,86**	**156,03**
A. Fuel Combustion Activities (Sectoral Approach)	**62.014,45**	**16,60**	**2,49**	**278,34**	**678,77**	**105,93**	**151,24**
1. Energy Industries	**35.388,19**	**6,21**	**1,18**	**104,24**	**10,00**	**2,73**	**109,49**
a. Public Electricity and Heat Production	33.604,92	6,09	1,13	99,41	9,32	2,67	106,81
b. Petroleum Refining	1.080,51	0,04	0,04	1,89	0,35	0,04	2,68
c. Manufacture of Solid Fuels and Other Energy Industries	702,77	0,08	0,01	2,94	0,34	0,02	0,00
2. Manufacturing Industries and Construction	**6.300,25**	**1,28**	**0,19**	**22,65**	**14,42**	**4,19**	**22,50**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.300,25	1,28	0,19	22,65	14,42	4,19	22,50
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				22,65	14,42	4,19	22,50
3. Transport	**11.642,31**	**3,53**	**0,79**	**112,78**	**465,93**	**79,85**	**5,01**
a. Civil Aviation	195,23	0,01	0,01	0,94	1,10	0,19	0,01
b. Road Transportation	10.551,39	3,44	0,73	98,90	454,75	74,20	1,67
c. Railways	300,30	0,02	0,01	2,80	0,42	0,18	0,10
d. Navigation	595,39	0,06	0,04	10,13	9,66	5,28	3,24
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.432,17**	**5,57**	**0,32**	**37,41**	**187,60**	**19,02**	**14,20**
a. Commercial/Institutional	1.104,48	0,59	0,03	1,24	0,84	0,33	1,87
b. Residential	5.027,76	3,96	0,18	5,08	165,09	12,22	5,91
c. Agriculture/Forestry/Fisheries	2.299,93	1,02	0,11	31,09	21,67	6,47	6,42
5. Other *(please specify)* [1]	**251,52**	**0,01**	**0,01**	**1,26**	**0,81**	**0,13**	**0,03**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	251,52	0,01	0,01	1,26	0,81	0,13	0,03
Emissions from military combustion of fuels	251,52	0,01	0,01	1,26	0,81	0,13	0,03
B. Fugitive Emissions from Fuels	**467,60**	**8,73**	**0,01**	**2,37**	**41,45**	**9,93**	**4,79**
1. Solid Fuels	**0,00**	**5,61**	**0,00**	**0,00**	**39,91**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	5,61	0,00	0,00	39,91	0,00	0,00
Storage of solid fluid					39,91		
2. Oil and Natural Gas	**467,60**	**3,12**	**0,01**	**2,37**	**1,54**	**9,93**	**4,79**
a. Oil	0,00	0,06		0,00	0,00	8,86	4,27
b. Natural Gas	0,00	1,82				0,41	0,00
c. Venting and Flaring	467,60	1,24	0,01	2,37	1,54	0,67	0,52
Venting	0,00	0,00					0,52
Flaring	467,60	1,24	0,01	2,37	1,54	0,67	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.664,35**	**0,14**	**0,37**	**139,95**	**12,59**	**3,83**	**69,69**
Aviation	1.818,72	0,03	0,06	7,34	1,31	0,28	0,06
Marine	4.845,63	0,11	0,30	132,61	11,28	3,55	69,63
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**5.678,74**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**822.852,07**	NCV				**62.014,45**	**16,60**	**2,49**
Liquid Fuels	321.831,90	NCV	74,16	13,12	3,64	23.867,76	4,22	1,17
Solid Fuels	326.290,61	NCV	95,00	2,37	3,00	30.997,61	0,77	0,98
Gaseous Fuels	117.014,08	NCV	56,90	63,96	1,00	6.658,10	7,48	0,12
Biomass	57.258,30	NCV	99,18	71,00	3,95 [3]	5.678,74	4,07	0,23
Other Fuels	457,18	NCV	1.073,93	105,78	0,66	490,98	0,05	0,00
1.A.1. Energy Industries	**431.414,72**	NCV				**35.388,19**	**6,21**	**1,18**
Liquid Fuels	45.359,73	NCV	67,68	2,59	1,99	3.070,02	0,12	0,09
Solid Fuels	306.808,21	NCV	95,00	1,57	3,00	29.146,78	0,48	0,92
Gaseous Fuels	48.151,09	NCV	56,90	107,15	1,00	2.739,80	5,16	0,05
Biomass	31.095,70	NCV	97,41	14,35	3,95 [3]	3.028,98	0,45	0,12
Other Fuels	0,00	NCV	0,00	0,00	0,00	431,60	0,00	0,00
a. Public Electricity and Heat Production	399.272,01	NCV				33.604,92	6,09	1,13
Liquid Fuels	25.574,71	NCV	77,79	2,92	1,99	1.989,51	0,07	0,05
Solid Fuels	306.808,21	NCV	95,00	1,57	3,00	29.146,78	0,48	0,92
Gaseous Fuels	35.800,19	NCV	56,90	142,01	1,00	2.037,03	5,08	0,04
Biomass	31.088,90	NCV	97,41	14,35	3,95 [3]	3.028,41	0,45	0,12
Other Fuels	0,00	NCV	0,00	0,00	0,00	431,60	0,00	0,00
b. Petroleum Refining	19.785,02	NCV				1.080,51	0,04	0,04
Liquid Fuels	19.785,02	NCV	54,61	2,17	2,00	1.080,51	0,04	0,04
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	12.357,70	NCV				702,77	0,08	0,01
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	12.350,90	NCV	56,90	6,10	1,00	702,77	0,08	0,01
Biomass	6,80	NCV	83,60	3,97	2,06 [3]	0,57	0,00	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**93.803,79**	NCV					**6.300,25**	**1,28**	**0,19**
Liquid Fuels	36.716,40	NCV	77,83	7,66	2,22		2.857,64	0,28	0,08
Solid Fuels	16.326,60	NCV	95,00	15,00	3,00		1.551,03	0,24	0,05
Gaseous Fuels	33.243,99	NCV	56,90	15,34	1,00		1.891,58	0,51	0,03
Biomass	7.516,80	NCV	101,92	31,88	3,99	[3]	766,11	0,24	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	93.803,79	NCV					6.300,25	1,28	0,19
Liquid Fuels	36.716,40	NCV	77,83	7,66	2,22		2.857,64	0,28	0,08
Solid Fuels	16.326,60	NCV	95,00	15,00	3,00		1.551,03	0,24	0,05
Gaseous Fuels	33.243,99	NCV	56,90	15,34	1,00		1.891,58	0,51	0,03
Biomass	7.516,80	NCV	101,92	31,88	3,99	[3]	766,11	0,24	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**158.373,76**	NCV					**11.642,31**	**3,53**	**0,79**
Gasoline	82.806,67	NCV	72,97	37,36	5,45		6.042,30	3,09	0,45
Diesel	75.109,91	NCV	74,11	5,18	4,47		5.566,74	0,39	0,34
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	457,18	NCV	72,78	105,78	0,66		33,27	0,05	0,00
a. Civil Aviation	2.709,81	NCV					195,23	0,01	0,01
Aviation Gasoline	121,34	NCV	73,00	21,90	2,00		8,86	0,00	0,00
Jet Kerosene	2.588,47	NCV	72,00	1,48	3,44		186,37	0,00	0,01
b. Road Transportation	143.670,32	NCV					10.551,39	3,44	0,73
Gasoline	80.096,86	NCV	73,00	38,54	5,52		5.847,07	3,09	0,44
Diesel Oil	63.560,78	NCV	74,00	5,61	4,60		4.703,50	0,36	0,29
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	12,68	NCV					0,82	0,00	0,00
	12,68	NCV	65,00	24,60	5,68		0,82	0,00	0,00
c. Railways	4.058,12	NCV					300,30	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.058,12	NCV	74,00	4,76	2,04		300,30	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	7.935,51	NCV					595,39	0,06	0,04
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	2.152,59	NCV	78,00	1,76	4,89		167,90	0,00	0,01
Gas/Diesel Oil	5.338,42	NCV	74,00	1,84	4,59		395,04	0,01	0,02
Other Fuels *(please specify)*	444,50	NCV					32,45	0,05	0,00
	444,50	NCV	73,00	108,10	0,52		32,45	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**139.259,79**	NCV					**8.432,17**	**5,57**	**0,32**
Liquid Fuels	81.839,19	NCV	74,29	4,04	2,49		6.079,54	0,33	0,20
Solid Fuels	3.155,80	NCV	95,00	15,00	3,00		299,80	0,05	0,01
Gaseous Fuels	35.619,00	NCV	56,90	50,94	1,00		2.026,72	1,81	0,04
Biomass	18.645,80	NCV	101,02	181,26	3,94 [3]		1.883,64	3,38	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		26,11	0,00	0,00
a. Commercial/Institutional	18.346,70	NCV					1.104,48	0,59	0,03
Liquid Fuels	8.376,50	NCV	74,54	1,89	2,01		624,39	0,02	0,02
Solid Fuels	91,10	NCV	95,00	14,99	3,00		8,65	0,00	0,00
Gaseous Fuels	7.826,50	NCV	56,90	65,65	1,00		445,33	0,51	0,01
Biomass	2.052,60	NCV	93,23	30,99	3,46 [3]		191,36	0,06	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		26,11	0,00	0,00
b. Residential	87.150,74	NCV					5.027,76	3,96	0,18
Liquid Fuels	47.665,24	NCV	74,01	4,05	2,01		3.527,60	0,19	0,10
Solid Fuels	757,70	NCV	95,00	15,00	3,00		71,98	0,01	0,00
Gaseous Fuels	25.099,80	NCV	56,90	41,04	1,00		1.428,18	1,03	0,03
Biomass	13.628,00	NCV	102,00	200,00	4,00 [3]		1.390,06	2,73	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	33.762,35	NCV					2.299,93	1,02	0,11
Liquid Fuels	25.797,45	NCV	74,72	4,70	3,53		1.927,55	0,12	0,09
Solid Fuels	2.307,00	NCV	95,00	15,00	3,00		219,17	0,03	0,01
Gaseous Fuels	2.692,70	NCV	56,90	100,44	1,00		153,21	0,27	0,00
Biomass	2.965,20	NCV	101,92	199,18	3,99 [3]		302,22	0,59	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**251,52**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		251,52	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	390.368,00	224.695,00	252.323,00		-3.693,00	366.433,00	1,00	NCV	366.433,00	20,00	7.328,66		7.328,66	1,00	26.871,75
		Orimulsion	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	22,00	0,00		0,00	1,00	0,00
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		46.237,00	29.160,00	6,00	3.255,00	13.816,00	1,00	NCV	13.816,00	18,90	261,12		261,12	1,00	957,45
		Jet Kerosene	TJ		23.518,00	4.018,00	25.563,00	-36,00	-6.027,00	1,00	NCV	-6.027,00	19,50	-117,53		-117,53	1,00	-430,93
		Other Kerosene	TJ		2.620,00	0,00	0,00	-659,00	3.279,00	1,00	NCV	3.279,00	19,60	64,27		64,27	1,00	235,65
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		84.021,00	76.712,00	24.123,00	-3.509,00	-13.305,00	1,00	NCV	-13.305,00	20,20	-268,76	0,00	-268,76	1,00	-985,46
		Residual Fuel Oil	TJ		50.522,00	56.762,00	39.024,00	97,00	-45.361,00	1,00	NCV	-45.361,00	21,10	-957,12		-957,12	1,00	-3.509,43
		LPG	TJ		683,00	3.467,00		134,00	-2.918,00	1,00	NCV	-2.918,00	17,20	-50,19	0,00	-50,19	1,00	-184,03
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		934,00	6.183,00		-247,00	-5.002,00	1,00	NCV	-5.002,00	20,00	-100,04	15,24	-115,28	1,00	-422,69
		Bitumen	TJ		8.881,00	66,00		-20,00	8.835,00	1,00	NCV	8.835,00	22,00	194,37	198,40	-4,03	1,00	-14,76
		Lubricants	TJ		3.810,00	1.140,00	213,00	43,00	2.414,00	1,00	NCV	2.414,00	20,00	48,28	26,10	22,18	1,00	81,33
		Petroleum Coke	TJ		11.885,00	500,00		3.857,00	7.528,00	1,00	NCV	7.528,00	27,50	207,02		207,02	1,00	759,07
		Refinery Feedstocks	TJ		14.493,00	2.559,00		-630,00	12.564,00	1,00	NCV	12.564,00	20,00	251,28		251,28	1,00	921,36
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												342.256,00		6.861,37	239,74	6.621,63		24.279,31
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	289.839,00	1.476,00	0,00	-30.794,00	319.157,00	1,00	NCV	319.157,00	25,80	8.234,25		8.234,25	1,00	30.192,25
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	94,00	17,00		12,00	65,00	1,00	NCV	65,00	27,60	1,79		1,79	1,00	6,58
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.170,00	0,00		-50,00	1.220,00	1,00	NCV	1.220,00	29,50	35,99		35,99	1,00	131,96
Solid Fuel Totals												320.442,00		8.272,03	0,00	8.272,03		30.330,79
Gaseous Fossil		Natural Gas (Dry)	TJ	181.802,00	0,00	62.828,00		4.341,00	114.633,00	1,00	NCV	114.633,00	15,30	1.753,88	0,00	1.753,88	1,00	6.430,91
Total												**777.331,00**		**16.887,29**	**239,74**	**16.647,55**		**61.041,02**
Biomass total												56.432,00		1.675,81	0,00	1.675,81		6.144,64
		Solid Biomass	TJ	54.797,00	111,00	0,00		0,00	54.908,00	1,00	NCV	54.908,00	29,90	1.641,75		1.641,75	1,00	6.019,75
		Liquid Biomass	TJ	245,00	0,00	0,00		0,00	245,00	1,00	NCV	245,00	20,00	4,90		4,90	1,00	17,97
		Gas Biomass	TJ	1.279,00	0,00	0,00		0,00	1.279,00	1,00	NCV	1.279,00	22,80	29,16		29,16	1,00	106,92

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	342,26	24.279,31	321,83	23.867,76	6,35	1,72
Solid Fuels (excluding international bunkers)	320,44	30.330,79	326,29	30.997,61	-1,79	-2,15
Gaseous Fuels	114,63	6.430,91	117,01	6.658,10	-2,03	-3,41
Other [3]	-12,64	457,71	0,46	490,98	-2.865,64	-6,78
Total [3]	**764,69**	**61.498,72**	**765,59**	**62.014,45**	**-0,12**	**-0,83**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered

CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.016,00	0,75	20,00	15,24
Lubricants	2.610,00	0,50	20,00	26,10
Bitumen	9.018,00	1,00	22,00	198,40
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
55,88	
95,70	
727,45	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				5,61	0,00
	11,77	0,48	0,00	5,61	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,06**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	1.875.000	0,00	0,00		0,00	0,00	
vi. Other		Mg Crude	8.917.059	0,00	0,01		0,00	0,06	
1. B. 2. b. Natural Gas							**0,00**	**1,82**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	2.500.000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 gas	6.683	0,00	27,76			0,19	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**467,60**	**1,24**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	411.788	70,36	0,00	0,00	28,97		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	7.708.823	56,90	0,16	0,00	438,63	1,24	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**63.360,55**				**4.845,63**	**0,11**	**0,30**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	24.122,77	74,00	1,69	4,68	1.785,09	0,04	0,11
Residual Fuel Oil	39.237,78	78,00	1,76	4,89	3.060,55	0,07	0,19
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**25.259,79**				**1.818,72**	**0,03**	**0,06**
Jet Kerosene	25.248,43	72,00	1,12	2,48	1.817,89	0,03	0,06
Gasoline	11,35	73,00	21,93	2,03	0,83	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	11,13	88,87
Aviation	9,69	90,31

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.317,77**	**0,00**	**0,00**	**775,60**	**141,01**	**3,50**	**0,13**	**0,02**	**0,01**	**0,60**	**0,00**	**0,59**	**0,22**
A. Mineral Products	**1.317,77**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.198,57												
2. Lime Production	119,20												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)*	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,60**	**0,00**	**0,00**	**0,22**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,60			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,22
													0,22
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	$HFCs^{(1)}$		$PFCs^{(1)}$		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,59**	**0,00**
1. Pulp and Paper													
2. Food and Drink[(2)]	0,00											0,59	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**775,60**	**141,01**	**3,50**	**0,13**	**0,02**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				451,96	21,32	3,50	0,13		0,00				
2. Foam Blowing				323,64	119,70		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,02	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,02	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[(2)] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1994

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.317,77**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.242,41	0,53			1.198,57					
2. Lime Production	Production of Lime and Brigs	502,28	0,24			119,20					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		400,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		100,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		672,56	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		0,00	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,43**	**0,00**	**101,24**	**46,00**	**0,00**	**0,46**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,02**	**0,00**	**0,00**	**0,00**	**0,00**		**5,11**
C. Metal Production															**0,00**	**0,00**							**1,90**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							1,90
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,00**	**0,00**	**0,00**	**0,43**	**0,00**	**101,24**	**46,00**	**0,00**	**0,46**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,02**	**0,00**	**0,00**	**0,00**	**0,00**		**3,21**
1. Refrigeration and Air Conditioning Equipment					0,43		14,12			0,46							0,02						
2. Foam Blowing							87,12	46,00															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,14
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		3,07
																							3,07
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,00**	**0,00**	**0,00**	**1,22**	**0,00**	**131,61**	**6,44**	**0,00**	**1,75**	**0,00**	**0,00**	**0,00**	**141,01**	**0,00**	**0,00**	**0,13**	**0,00**	**0,00**	**0,00**	**0,00**	**0,13**	**122,06**
C. Metal Production															0,00	0,00						0,00	45,41
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,00	0,00	0,00	1,22	0,00	131,61	6,44	0,00	1,75	0,00	0,00	0,00	141,01	0,00	0,00	0,13	0,00	0,00	0,00	0,00	0,13	76,65
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	1,22	0,00	131,61	6,44	0,00	1,75	0,00	0,00	0,00	141,01	0,00	0,00	0,13	0,00	0,00	0,00	0,00	0,13	76,65
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal Production; Production of Halocarbons and SF_6
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				1,90	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	1,90	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF_6
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	235,00	56,87		2,00	1,00	0,00	4,70	0,30	0,00
Commercial Refrigeration									
Transport Refrigeration									
HFC-404a	1,00	0,96	0,00	4,50	30,00	5,50	0,05	0,00	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
2 Foam Blowing									
Hard Foam									
Soft Foam									

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1994

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,70	18,40	0,00	5,00	0,50	5,00	0,09	0,05	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	15,60	19,41	0,00	15,00	1,00	65,00	2,34	0,13	0,00
SF6 (laboratories)	0,50	0,00	0,00	100,00	0,00	0,00	0,50	0,00	0,00
SF6 (running shoes)	0,00	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**118,87**	**0,00**	**40,59**
A. Paint Application	**76,48**		**24,54**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,45**
D. Other *(please specify)*	42,40	0,00	13,60
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	42,40		13,60

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**1,97**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**189,25**	**29,68**	**0,00**	**0,00**	**1,14**
A. Enteric Fermentation	**144,83**				
1. Cattle	124,75				
Dairy Cattle	72,75				
Non-Dairy Cattle	52,00				
2. Buffalo	NO				
3. Sheep	1,16				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,54				
7. Mules and Asses	NO				
8. Swine	16,38				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**44,41**	**1,60**			**0,00**
1. Cattle	16,59				
Dairy Cattle	14,34				
Non-Dairy Cattle	2,25				
2. Buffalo	NO				
3. Sheep	0,07				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,16				
7. Mules and Asses	NO				
8. Swine	26,80				
9. Poultry	0,80				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,23			NE
12. Solid Storage and Dry Lot		1,37			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**28,08**			**1,14**
1. Direct Soil Emissions	NE	17,49			1,14
2. Animal Production	NE	1,17			NE
3. Indirect Emissions	NE	9,33			NE
4. Other *(please specify)* [redacted]	0,00	0,09			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	700	264,7	6,00	104,00
Non-Dairy Cattle	1.405	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	145			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	141			18,00
7. Mules and Asses				0,00
8. Swine	10.923			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals [b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation [c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	CH_4
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	700	100,0			550,0	2.115,0	0,2	20,50
Non-Dairy Cattle	1.405	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	145	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	141	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	10.923	100,0			76,0	110,0	0,5	2,45
9. Poultry	25.148	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1994

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system (kg N_2O-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	700								Anaerobic lagoon	0,000
Dairy Cattle	1.405								Liquid system	0,000
Sheep	212								Solid storage and dry lot	0,000
Swine	17.291								Other	0,000
Poultry	25.148									
Other *(please specify)*										
Total per AWMS[2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1994

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[1]

1994

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**17,49**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	326.200.000	(kg N2O-N/kg N)[2]	0,012	6,28
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	263.700.000	(kg N2O-N/kg N)[2]	0,009	3,71
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	32.700.000	(kg N2O-N/kg dry biomass)[2]	0,013	0,64
Crop Residue	Dry production of other crops (kg dry biomass/yr)	341.400.000	(kg N2O-N/kg dry biomass)[2]	0,013	6,71
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[2]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**40.100.000**	**(kg N2O-N/kg N)[2]**	**0,019**	**1,17**
Indirect Emissions					**9,33**
Atmospheric Deposition	(kg N/yr)	83.958.100	(kg N2O-N/kg N)[2]	0,010	1,32
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	204.000.000	(kg N2O-N/kg N)[2]	0,025	8,01
Other *(please specify)*					**0,09**
Sewage sludge used as fertilizer	(kg N/yr)	4.600.000	(kg N2O-N/kg N)[2]	0,013	0,09
Industrial waste used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[2]	0,000	
				0,000	

Additional information

Fraction [a]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,13
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,32
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[a] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[1] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[2] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1994

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:
According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.126,00**	**-3.126,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.126,00**	**-3.126,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-8,00	-8,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-8,00	-8,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Forest and Grassland Conversion
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1994

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

Year	Climate [a]	land-use/ management system [a]	Soil type: High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**65,50**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**65,50**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	65,50		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	2.604,00				0,03	#VALUE!	65,50	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

(1) Actual emissions (after recovery).

(2) CH_4 recovered and flared or utilized.

(3) Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

(a) Specify whether total or urban population is used and the rationale for doing so.

(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

(c) For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)	(kg/kg DC)	(kg/kg DC)	(Gg)	(Gg)	(Gg)
Industrial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Domestic and Commercial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC (kgCOD/m^3)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**63.918,69**	**-3.126,00**	**280,07**	**32,18**	**775,60**	**141,01**	**3,50**	**0,13**	**0,02**	**0,01**	**281,32**	**720,21**	**167,49**	**156,24**
1. Energy	**62.482,05**		**25,33**	**2,50**							**280,72**	**720,21**	**115,86**	**156,03**
A. Fuel Combustion — Reference Approach[2]	61.041,02													
Sectoral Approach[2]	62.014,45		16,60	2,49							278,34	678,77	105,93	151,24
1. Energy Industries	35.388,19		6,21	1,18							104,24	10,00	2,73	109,49
2. Manufacturing Industries and Construction	6.300,25		1,28	0,19							22,65	14,42	4,19	22,50
3. Transport	11.642,31		3,53	0,79							112,78	465,93	79,85	5,01
4. Other Sectors	8.432,17		5,57	0,32							37,41	187,60	19,02	14,20
5. Other	251,52		0,01	0,01							1,26	0,81	0,13	0,03
B. Fugitive Emissions from Fuels	467,60		8,73	0,01							2,37	41,45	9,93	4,79
1. Solid Fuels	0,00		5,61	0,00							0,00	39,91	0,00	0,00
2. Oil and Natural Gas	467,60		3,12	0,01							2,37	1,54	9,93	4,79
2. Industrial Processes	**1.317,77**		**0,00**	**0,00**	**775,60**	**141,01**	**3,50**	**0,13**	**0,02**	**0,01**	**0,60**	**0,00**	**0,59**	**0,22**
A. Mineral Products	1.317,77		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,60	0,00	0,00	0,22
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,59	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					775,60	141,01	3,50	0,13	0,02	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**118,87**			**0,00**									**40,59**	
4. Agriculture	**0,00**	**0,00**	**189,25**	**29,68**							0,00	0,00	1,14	0,00
A. Enteric Fermentation			144,83											
B. Manure Management			44,41	1,60									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	28,08									1,14	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.126,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.126,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,31	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**65,50**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		65,50									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**6.664,35**		**0,14**	**0,37**							**139,95**	**12,59**	**3,83**	**69,69**
Aviation	1.818,72		0,03	0,06							7,34	1,31	0,28	0,06
Marine	4.845,63		0,11	0,30							132,61	11,28	3,55	69,63
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**5.678,74**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**63.918,69**	**-3.126,00**	**280,07**	**32,18**	**775,60**	**141,01**	**3,50**	**0,13**	**0,02**	**0,01**	**281,32**	**720,21**	**167,49**	**156,24**
1. Energy		**62.482,05**		**25,33**	**2,50**							**280,72**	**720,21**	**115,86**	**156,03**
A. Fuel Combustion	Reference Approach[2]	61.041,02													
	Sectoral Approach[2]	62.014,45		16,60	2,49							278,34	678,77	105,93	151,24
B. Fugitive Emissions from Fuels		467,60		8,73	0,01							2,37	41,45	9,93	4,79
2. Industrial Processes		**1.317,77**		**0,00**	**0,00**	**775,60**	**141,01**	**3,50**	**0,13**	**0,02**	**0,01**	**0,60**	**0,00**	**0,59**	**0,22**
3. Solvent and Other Product Use		**118,87**			**0,00**							**0,00**	**0,00**	**40,59**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**189,25**	**29,68**							**0,00**	**0,00**	**1,14**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.126,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,31**	**0,00**
6. Waste		**0,00**		**65,50**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.664,35**		**0,14**	**0,37**							**139,95**	**12,59**	**3,83**	**69,69**
Aviation		1.818,72		0,03	0,06							7,34	1,31	0,28	0,06
Marine		4.845,63		0,11	0,30							132,61	11,28	3,55	69,63
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.678,74**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**60.792,69**	**5.881,51**	**9.975,90**	**141,01**	**0,13**	**122,06**	**76.913,31**
1. Energy	**62.482,05**	**531,86**	**775,68**				**63.789,59**
A. Fuel Combustion (Sectoral Approach)	62.014,45	348,53	773,16				63.136,14
1. Energy Industries	35.388,19	130,32	366,36				35.884,87
2. Manufacturing Industries and Construction	6.300,25	26,79	60,04				6.387,08
3. Transport	11.642,31	74,16	244,04				11.960,51
4. Other Sectors	8.432,17	117,01	99,82				8.649,00
5. Other	251,52	0,25	2,90				254,68
B. Fugitive Emissions from Fuels	467,60	183,33	2,52				653,45
1. Solid Fuels	0,00	117,80	0,00				117,80
2. Oil and Natural Gas	467,60	65,53	2,52				535,65
2. Industrial Processes	**1.317,77**	**0,00**	**0,00**	**141,01**	**0,13**	**122,06**	**1.580,97**
A. Mineral Products	1.317,77	0,00	0,00				1.317,77
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	45,41	45,41
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				141,01	0,13	76,65	217,79
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**118,87**		**0,00**				**118,87**
4. Agriculture	**0,00**	**3.974,15**	**9.200,22**				**13.174,37**
A. Enteric Fermentation		3.041,49					3.041,49
B. Manure Management		932,66	494,61				1.427,27
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.705,61				8.705,61
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.126,00**	**0,00**	**0,00**				**-3.126,00**
6. Waste	**0,00**	**1.375,50**	**0,00**				1.375,50
A. Solid Waste Disposal on Land	0,00	1.375,50					1.375,50
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.664,35**	**2,90**	**113,89**				**6.781,14**
Aviation	1.818,72	0,60	19,38				1.838,69
Marine	4.845,63	2,30	94,51				4.942,44
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**5.678,74**						**5.678,74**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.126,00	-3.126,00			-3.126,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.126,00	-3.126,00	0,00	0,00	-3.126,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	80.039,31
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	76.913,31

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark

1994

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[(1)]	Previous submission	Latest submission	Difference[(1)]	Previous submission	Latest submission	Difference[(1)]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**62.926,55**	**60.792,69**	**-3,39**	**6.069,86**	**5.881,51**	**-3,10**	**9.963,89**	**9.975,90**	**0,12**
1. Energy		**62.417,91**	**62.482,05**	**0,10**	**769,36**	**531,86**	**-30,87**	**763,67**	**775,68**	**1,57**
1.A.	Fuel Combustion Activities	61.965,28	62.014,45	0,08	413,03	348,53	-15,61	761,28	773,16	1,56
1.A.1.	Energy Industries	35.388,19	35.388,19	0,00	132,82	130,32	-1,88	361,03	366,36	1,48
1.A.2.	Manufacturing Industries and Construction	6.300,25	6.300,25	0,00	18,36	26,79	45,96	60,03	60,04	0,02
1.A.3.	Transport	11.618,77	11.642,31	0,20	73,53	74,16	0,85	243,58	244,04	0,19
1.A.4.	Other Sectors	8.406,55	8.432,17	0,30	188,08	117,01	-37,79	93,58	99,82	6,67
1.A.5.	Other	251,52	251,52	0,00	0,24	0,25	6,33	3,07	2,90	-5,31
1.B.	Fugitive Emissions from Fuels	452,63	467,60	3,31	356,33	183,33	-48,55	2,39	2,52	5,34
1.B.1.	Solid fuel	0,00	0,00	0,00	117,18	117,80	0,53	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	452,63	467,60	3,31	239,15	65,53	-72,60	2,39	2,52	5,34
2. Industrial Processes		**1.317,77**	**1.317,77**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.317,77	1.317,77	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**118,87**	**118,87**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.925,00**	**3.974,15**	**1,25**	**9.200,22**	**9.200,22**	**0,00**
4.A.	Enteric Fermentation				2.995,17	3.041,49	1,55			
4.B.	Manure Management				929,83	932,66	0,30	494,61	494,61	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [(2)]			0,00	0,00	0,00	0,00	8.705,61	8.705,61	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-928,00**	**-3.126,00**	**236,85**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-928,00	-3.126,00	236,85						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[(1)] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[(2)] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.375,50**	**1.375,50**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.375,50	1.375,50	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**6.686,08**	**6.664,35**	**-0,33**	**3,07**	**2,90**	**-5,53**	**114,20**	**113,89**	**-0,28**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**5.678,74**	**5.678,74**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**141,15**	**141,01**	**-0,10**	**0,13**	**0,13**	**0,00**	**122,06**	**122,06**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	45,41	45,41	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	141,15	141,01	-0,10	0,13	0,13	0,00	76,65	76,65	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**772,34**	**775,60**		**3,50**	**3,50**		**427,81**	**427,81**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	79.223,64	76.913,31	-2,92
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	80.151,64	80.039,31	-0,14

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1994
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1994
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1994
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	**Source category**	**Emissions (Gg)**	**Estimated GWP value (100-year horizon)**	**Emissions CO_2 equivalent (Gg)**	**Reference to the data source of GWP value**	**Explanation**

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1994

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	-0,83	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1995

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**59.701,10**	**31,64**	**2,48**	**263,51**	**703,19**	**111,38**	**148,50**
A. Fuel Combustion Activities (Sectoral Approach)	**59.335,85**	**22,11**	**2,48**	**261,66**	**657,89**	**102,58**	**145,28**
1. Energy Industries	**32.093,13**	**10,94**	**1,08**	**89,61**	**11,07**	**4,10**	**106,43**
a. Public Electricity and Heat Production	29.981,49	10,82	1,02	84,62	10,32	4,03	105,17
b. Petroleum Refining	1.371,15	0,04	0,05	1,95	0,38	0,04	1,25
c. Manufacture of Solid Fuels and Other Energy Industries	740,49	0,08	0,01	3,04	0,36	0,03	0,00
2. Manufacturing Industries and Construction	**6.705,17**	**1,42**	**0,20**	**23,20**	**14,31**	**4,21**	**22,72**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.705,17	1,42	0,20	23,20	14,31	4,21	22,72
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				23,20	14,31	4,21	22,72
3. Transport	**11.774,94**	**3,69**	**0,87**	**110,20**	**450,23**	**75,17**	**4,53**
a. Civil Aviation	198,25	0,01	0,01	0,96	1,19	0,20	0,01
b. Road Transportation	10.647,82	3,60	0,81	95,73	438,84	69,48	1,68
c. Railways	303,68	0,02	0,01	2,84	0,48	0,19	0,10
d. Navigation	625,20	0,06	0,04	10,68	9,73	5,30	2,74
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.510,72**	**6,04**	**0,32**	**36,93**	**181,44**	**18,90**	**11,55**
a. Commercial/Institutional	1.095,14	0,65	0,03	1,27	0,83	0,38	1,20
b. Residential	5.086,45	3,95	0,18	5,09	159,21	12,09	5,37
c. Agriculture/Forestry/Fisheries	2.329,12	1,44	0,11	30,57	21,40	6,43	4,98
5. Other *(please specify)* [1]	**251,89**	**0,02**	**0,01**	**1,72**	**0,85**	**0,19**	**0,05**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	251,89	0,02	0,01	1,72	0,85	0,19	0,05
Emissions from military combustion of fuels	251,89	0,02	0,01	1,72	0,85	0,19	0,05
B. Fugitive Emissions from Fuels	**365,25**	**9,53**	**0,01**	**1,85**	**45,30**	**8,81**	**3,23**
1. Solid Fuels	**0,00**	**6,30**	**0,00**	**0,00**	**44,10**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	6,30	0,00	0,00	44,10	0,00	0,00
Storage of solid fluid					44,10		
2. Oil and Natural Gas	**365,25**	**3,23**	**0,01**	**1,85**	**1,20**	**8,81**	**3,23**
a. Oil	0,00	0,05		0,00	0,00	7,76	3,02
b. Natural Gas	0,00	2,21				0,53	0,00
c. Venting and Flaring	365,25	0,97	0,01	1,85	1,20	0,52	0,20
Venting	0,00	0,00					0,20
Flaring	365,25	0,97	0,01	1,85	1,20	0,52	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.940,00**	**0,15**	**0,38**	**146,39**	**13,20**	**4,03**	**76,59**
Aviation	1.867,44	0,03	0,06	7,54	1,39	0,32	0,06
Marine	5.072,56	0,11	0,32	138,85	11,81	3,72	76,53
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**6.014,23**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**807.125,44**	NCV				**59.335,85**	**22,11**	**2,48**
Liquid Fuels	336.597,57	NCV	74,51	13,14	3,80	25.080,01	4,42	1,28
Solid Fuels	273.898,68	NCV	95,00	2,50	3,00	26.020,37	0,68	0,82
Gaseous Fuels	135.645,22	NCV	56,90	95,40	1,00	7.718,21	12,94	0,14
Biomass	60.527,28	NCV	99,36	66,30	3,93 [3]	6.014,23	4,01	0,24
Other Fuels	456,69	NCV	1.132,62	105,82	0,66	517,25	0,05	0,00
1.A.1. Energy Industries	**405.856,98**	NCV				**32.093,13**	**10,94**	**1,08**
Liquid Fuels	57.834,32	NCV	70,95	2,53	2,00	4.103,11	0,15	0,12
Solid Fuels	254.813,74	NCV	95,00	1,56	3,00	24.207,31	0,40	0,76
Gaseous Fuels	58.436,64	NCV	56,90	169,57	1,00	3.325,04	9,91	0,06
Biomass	34.772,28	NCV	98,16	14,11	3,94 [3]	3.413,09	0,49	0,14
Other Fuels	0,00	NCV	0,00	0,00	0,00	457,67	0,00	0,00
a. Public Electricity and Heat Production	369.566,66	NCV				29.981,49	10,82	1,02
Liquid Fuels	34.614,34	NCV	78,93	2,95	2,00	2.731,96	0,10	0,07
Solid Fuels	254.813,74	NCV	95,00	1,56	3,00	24.207,31	0,40	0,76
Gaseous Fuels	45.422,79	NCV	56,90	216,29	1,00	2.584,56	9,82	0,05
Biomass	34.715,78	NCV	98,18	14,13	3,95 [3]	3.408,37	0,49	0,14
Other Fuels	0,00	NCV	0,00	0,00	0,00	457,67	0,00	0,00
b. Petroleum Refining	23.219,97	NCV				1.371,15	0,04	0,05
Liquid Fuels	23.219,97	NCV	59,05	1,90	2,00	1.371,15	0,04	0,05
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	13.070,35	NCV				740,49	0,08	0,01
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	13.013,85	NCV	56,90	6,49	1,00	740,49	0,08	0,01
Biomass	56,50	NCV	83,60	4,00	2,00 [3]	4,72	0,00	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**99.489,66**	NCV					**6.705,17**	**1,42**	**0,20**
Liquid Fuels	38.372,64	NCV	78,22	7,67	2,23		3.001,54	0,29	0,09
Solid Fuels	16.722,84	NCV	95,00	15,00	3,00		1.588,67	0,25	0,05
Gaseous Fuels	37.169,78	NCV	56,90	17,48	1,00		2.114,96	0,65	0,04
Biomass	7.224,40	NCV	101,31	30,95	3,93	[3]	731,93	0,22	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	99.489,66	NCV					6.705,17	1,42	0,20
Liquid Fuels	38.372,64	NCV	78,22	7,67	2,23		3.001,54	0,29	0,09
Solid Fuels	16.722,84	NCV	95,00	15,00	3,00		1.588,67	0,25	0,05
Gaseous Fuels	37.169,78	NCV	56,90	17,48	1,00		2.114,96	0,65	0,04
Biomass	7.224,40	NCV	101,31	30,95	3,93	[3]	731,93	0,22	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**160.210,13**	NCV					**11.774,94**	**3,69**	**0,87**
Gasoline	83.710,87	NCV	72,97	38,85	6,28		6.108,27	3,25	0,53
Diesel	76.042,57	NCV	74,08	5,13	4,51		5.633,43	0,39	0,34
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	456,69	NCV	72,78	105,82	0,66		33,24	0,05	0,00
a. Civil Aviation	2.751,59	NCV					198,25	0,01	0,01
Aviation Gasoline	132,42	NCV	73,00	21,90	2,00		9,67	0,00	0,00
Jet Kerosene	2.619,16	NCV	72,00	1,55	3,52		188,58	0,00	0,01
b. Road Transportation	144.984,98	NCV					10.647,82	3,60	0,81
Gasoline	80.959,29	NCV	73,00	40,09	6,37		5.910,03	3,25	0,52
Diesel Oil	64.013,27	NCV	74,00	5,56	4,65		4.736,98	0,36	0,30
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	12,42	NCV					0,81	0,00	0,00
	12,42	NCV	65,00	24,48	5,72		0,81	0,00	0,00
c. Railways	4.103,89	NCV					303,68	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.103,89	NCV	74,00	4,85	2,05		303,68	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	8.369,68	NCV					625,20	0,06	0,04
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	1.572,93	NCV	78,00	1,76	4,89		122,69	0,00	0,01
Gas/Diesel Oil	6.352,47	NCV	74,00	1,81	4,61		470,08	0,01	0,03
Other Fuels *(please specify)*	444,27	NCV					32,43	0,05	0,00
	444,27	NCV	73,00	108,10	0,52		32,43	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**141.568,67**	NCV					**8.510,72**	**6,04**	**0,32**
Liquid Fuels	80.637,17	NCV	74,18	4,02	2,47		5.981,77	0,32	0,20
Solid Fuels	2.362,10	NCV	95,00	15,00	3,00		224,40	0,04	0,01
Gaseous Fuels	40.038,80	NCV	56,90	59,48	1,00		2.278,21	2,38	0,04
Biomass	18.530,60	NCV	100,87	178,02	3,92 [3]		1.869,21	3,30	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		26,34	0,00	0,00
a. Commercial/Institutional	18.766,30	NCV					1.095,14	0,65	0,03
Liquid Fuels	7.685,10	NCV	74,48	1,86	2,01		572,36	0,01	0,02
Solid Fuels	66,70	NCV	95,00	14,99	3,00		6,34	0,00	0,00
Gaseous Fuels	8.613,30	NCV	56,90	64,87	1,00		490,10	0,56	0,01
Biomass	2.401,20	NCV	93,48	32,42	3,37 [3]		224,46	0,08	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		26,34	0,00	0,00
b. Residential	88.398,35	NCV					5.086,45	3,95	0,18
Liquid Fuels	47.170,25	NCV	73,88	4,02	2,00		3.484,97	0,19	0,09
Solid Fuels	487,80	NCV	95,00	15,00	3,00		46,34	0,01	0,00
Gaseous Fuels	27.331,20	NCV	56,90	39,28	1,00		1.555,15	1,07	0,03
Biomass	13.409,10	NCV	102,00	200,00	4,00 [3]		1.367,73	2,68	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	34.404,02	NCV					2.329,12	1,44	0,11
Liquid Fuels	25.781,82	NCV	74,64	4,65	3,47		1.924,44	0,12	0,09
Solid Fuels	1.807,60	NCV	95,00	15,00	3,00		171,72	0,03	0,01
Gaseous Fuels	4.094,30	NCV	56,90	182,94	1,00		232,97	0,75	0,00
Biomass	2.720,30	NCV	101,83	198,22	3,98 [3]		277,02	0,54	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**251,89**	**0,02**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		251,89	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	392.599,00	228.986,00	202.957,00		5.479,00	413.149,00	1,00	NCV	413.149,00	20,00	8.262,98		8.262,98	1,00	30.297,59
		Orimulsion	TJ	0,00	24.888,00	1.668,00		3.251,00	19.969,00	1,00	NCV	19.969,00	22,00	439,32		439,32	1,00	1.610,83
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		32.999,00	41.440,00	11,00	1.000,00	-9.452,00	1,00	NCV	-9.452,00	18,90	-178,64		-178,64	1,00	-655,02
		Jet Kerosene	TJ		22.746,00	2.990,00	26.124,00	454,00	-6.822,00	1,00	NCV	-6.822,00	19,50	-133,03		-133,03	1,00	-487,77
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		62.311,00	63.210,00	26.743,00	-9.604,00	-18.038,00	1,00	NCV	-18.038,00	20,20	-364,37	0,00	-364,37	1,00	-1.336,01
		Residual Fuel Oil	TJ		32.246,00	56.781,00	39.509,00	492,00	-64.536,00	1,00	NCV	-64.536,00	21,10	-1.361,71		-1.361,71	1,00	-4.992,94
		LPG	TJ		659,00	3.561,00		-60,00	-2.842,00	1,00	NCV	-2.842,00	17,20	-48,88	0,00	-48,88	1,00	-179,24
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		977,00	6.128,00		169,00	-5.320,00	1,00	NCV	-5.320,00	20,00	-106,40	15,35	-121,75	1,00	-446,40
		Bitumen	TJ		9.203,00	151,00		47,00	9.005,00	1,00	NCV	9.005,00	22,00	198,11	199,47	-1,36	1,00	-5,00
		Lubricants	TJ		3.592,00	1.151,00	153,00	-80,00	2.368,00	1,00	NCV	2.368,00	20,00	47,36	25,66	21,70	1,00	79,57
		Petroleum Coke	TJ		5.851,00	1.540,00		-951,00	5.262,00	1,00	NCV	5.262,00	27,50	144,71		144,71	1,00	530,59
		Refinery Feedstocks	TJ		9.071,00	1.568,00		1.755,00	5.748,00	1,00	NCV	5.748,00	20,00	114,96		114,96	1,00	421,52
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												348.491,00		7.014,40	240,48	6.773,92		24.837,72
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	320.087,00	642,00	0,00	50.735,00	268.710,00	1,00	NCV	268.710,00	25,80	6.932,72		6.932,72	1,00	25.419,97
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	58,00	18,00		-21,00	61,00	1,00	NCV	61,00	27,60	1,68		1,68	1,00	6,17
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.327,00	0,00		69,00	1.258,00	1,00	NCV	1.258,00	29,50	37,11		37,11	1,00	136,07
Solid Fuel Totals												270.029,00		6.971,51	0,00	6.971,51		25.562,21
Gaseous Fossil		Natural Gas (Dry)	TJ	196.852,00	0,00	62.649,00		1.465,00	132.738,00	1,00	NCV	132.738,00	15,30	2.030,89	0,00	2.030,89	1,00	7.446,60
Total												**751.258,00**		**16.016,81**	**240,48**	**15.776,33**		**57.846,53**
Biomass total												59.850,00		1.774,58	0,00	1.774,58		6.506,78
		Solid Biomass	TJ	57.607,00	238,00	0,00		0,00	57.845,00	1,00	NCV	57.845,00	29,90	1.729,57		1.729,57	1,00	6.341,74
		Liquid Biomass	TJ	251,00	0,00	0,00		0,00	251,00	1,00	NCV	251,00	20,00	5,02		5,02	1,00	18,41
		Gas Biomass	TJ	1.754,00	0,00	0,00		0,00	1.754,00	1,00	NCV	1.754,00	22,80	39,99		39,99	1,00	146,63

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	348,49	24.837,72	336,60	25.080,01	3,53	-0,97
Solid Fuels (excluding international bunkers)	270,03	25.562,21	273,90	26.020,37	-1,41	-1,76
Gaseous Fuels	132,74	7.446,60	135,65	7.718,21	-2,14	-3,52
Other [3]	-12,66	484,02	0,46	517,25	-2.871,24	-6,43
Total [3]	**738,60**	**58.330,55**	**746,60**	**59.335,85**	**-1,07**	**-1,69**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.
[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).
[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.
CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.023,00	0,75	20,00	15,35
Lubricants	2.566,00	0,50	20,00	25,66
Bitumen	9.067,00	1,00	22,00	199,47
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
56,27	
94,09	
731,40	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				6,30	0,00
	13,01	0,48	0,00	6,30	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,05**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	2.007.000	0,00	0,00		0,00	0,00	
vi. Other		Mg Crude	9.806.171	0,00	0,00			0,05	
1. B. 2. b. Natural Gas							**0,00**	**2,21**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	2.500.000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 gas	7.447	0,00	77,34			0,58	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**365,25**	**0,97**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	411.788	56,90	0,00	0,00	23,43		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	6.007.356	56,90	0,16	0,00	341,82	0,97	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**66.404,22**				**5.072,56**	**0,11**	**0,32**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	26.742,61	74,00	1,69	4,68	1.978,95	0,05	0,13
Residual Fuel Oil	39.661,62	78,00	1,76	4,89	3.093,61	0,07	0,19
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**25.936,48**				**1.867,44**	**0,03**	**0,06**
Jet Kerosene	25.923,52	72,00	1,22	2,48	1.866,49	0,03	0,06
Gasoline	12,96	73,00	21,91	2,01	0,95	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	11,19	88,81
Aviation	9,59	90,41

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.311,00**	**0,00**	**0,00**	**1.186,47**	**235,83**	**10,50**	**0,95**	**0,02**	**0,00**	**0,60**	**0,00**	**0,63**	**0,22**
A. Mineral Products	**1.311,00**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.202,83												
2. Lime Production	108,18												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,60**	**0,00**	**0,00**	**0,22**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,60			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,22
													0,22
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	$HFCs^{(1)}$		$PFCs^{(1)}$		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,63**	**0,00**
1. Pulp and Paper													
2. Food and Drink[(2)]	0,00											0,63	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.186,47**	**235,83**	**10,50**	**0,95**	**0,02**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				793,05	53,61	10,50	0,95		0,00				
2. Foam Blowing				393,42	182,22		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[(2)] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1995

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.311,00**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.273,78	0,53			1.202,83					
2. Lime Production	Production of Lime and Brigs	466,08	0,23			108,18					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		400,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		100,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1995

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		657,02	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		0,00	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,11**	**0,00**	**0,00**	**4,21**	**0,00**	**154,86**	**43,40**	**0,00**	**4,36**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,14**	**0,00**	**0,00**	**0,00**	**0,00**		**4,49**
C. Metal Production															**0,00**	**0,00**							**1,50**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							1,50
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,11**	**0,00**	**0,00**	**4,21**	**0,00**	**154,86**	**43,40**	**0,00**	**4,36**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,14**	**0,00**	**0,00**	**0,00**	**0,00**		**2,99**
1. Refrigeration and Air Conditioning Equipment		0,11			4,21		19,32	0,40		4,36							0,14						
2. Foam Blowing							135,54	43,00															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,16
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		2,83
																							2,83
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,07**	**0,00**	**0,00**	**11,79**	**0,00**	**201,32**	**6,08**	**0,00**	**16,58**	**0,00**	**0,00**	**0,00**	**235,83**	**0,00**	**0,00**	**0,95**	**0,00**	**0,00**	**0,00**	**0,00**	**0,95**	**107,36**
C. Metal Production															0,00	0,00						0,00	35,85
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,07	0,00	0,00	11,79	0,00	201,32	6,08	0,00	16,58	0,00	0,00	0,00	235,83	0,00	0,00	0,95	0,00	0,00	0,00	0,00	0,95	71,51
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,07	0,00	0,00	11,79	0,00	201,32	6,08	0,00	16,58	0,00	0,00	0,00	235,83	0,00	0,00	0,95	0,00	0,00	0,00	0,00	0,95	71,51
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

1995

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				1,50	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	1,50	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF_6
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134a	267,00	165,09		2,00	1,00	0,00	5,34	0,57	0,00
HFC-404a	2,00	1,96		2,00	1,00	0,00	0,04	0,00	0,00
Commercial Refrigeration									
HFC-402a	13,00	17,24		1,50	10,00	0,00	0,20	0,49	0,00
Other HFCs (~410a)	14,00	13,79		1,50	10,00	0,00	0,21	0,00	0,00
Transport Refrigeration									
HFC-152a (other use)	3,00	3,53	0,00	4,50	30,00	5,50	0,14	0,29	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
2 Foam Blowing									
Hard Foam									
HFC-152a (refrigerators)	4,00	3,60		10,00	4,50	0,00	0,40	0,00	0,00
Soft Foam									
HFC-134a (foam plastics)	20,00	0,00	0,00	100,00	0,00	0,00	20,00	0,00	0,00
HFC-152a (foam plastics)	4,00	0,00	0,00	100,00	0,00	0,00	4,00	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1995

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,40	26,20	0,00	5,00	0,50	5,00	0,07	0,09	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	13,50	24,96	0,00	15,00	1,00	65,00	2,03	0,19	0,00
SF6 (laboratories)	0,40	0,00	0,00	100,00	0,00	0,00	0,40	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**117,67**	**0,00**	**40,15**
A. Paint Application	**75,77**		**24,31**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,40**
D. Other *(please specify)*	41,89	0,00	13,44
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	41,89		13,44

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**1,97**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**189,37**	**29,46**	**0,00**	**0,00**	**1,33**
A. Enteric Fermentation	**144,76**				
1. Cattle	124,41				
Dairy Cattle	73,06				
Non-Dairy Cattle	51,35				
2. Buffalo	NO				
3. Sheep	1,16				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,57				
7. Mules and Asses	NO				
8. Swine	16,63				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**44,61**	**1,57**			**0,00**
1. Cattle	16,39				
Dairy Cattle	14,17				
Non-Dairy Cattle	2,22				
2. Buffalo	NO				
3. Sheep	0,07				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,16				
7. Mules and Asses	NO				
8. Swine	27,24				
9. Poultry	0,76				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,23			NE
12. Solid Storage and Dry Lot		1,34			NE
13. Other *(please specify)*		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)*	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**27,89**			**1,33**
1. Direct Soil Emissions	NE	17,53			1,33
2. Animal Production	NE	1,21			NE
3. Indirect Emissions	NE	9,06			NE
4. Other *(please specify)*	0,00	0,10			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)*	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size[2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	702	264,7	6,00	104,00
Non-Dairy Cattle	1.388	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	145			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	143			18,00
7. Mules and Asses				0,00
8. Swine	11.084			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals[b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation[c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	702	100,0			550,0	2.115,0	0,2	20,17
Non-Dairy Cattle	1.388	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	145	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	143	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	11.084	100,0			76,0	110,0	0,5	2,46
9. Poultry	23.916	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1995

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1) (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	702								Anaerobic lagoon	0,000
Dairy Cattle	1.388								Liquid system	0,000
Sheep	212								Solid storage and dry lot	0,000
Swine	17.499								Other	0,000
Poultry	23.916									
Other *(please specify)*										
Total per AWMS(2)			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

(1) See footnote 1 to Table 4.A of this common reporting format.

(2) AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1995

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[(1)]

1995

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**17,53**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	315.900.000	(kg N2O-N/kg N)[(2)]	0,012	6,08
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	259.400.000	(kg N2O-N/kg N)[(2)]	0,009	3,65
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	29.600.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,58
Crop Residue	Dry production of other crops (kg dry biomass/yr)	359.700.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	7,07
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**41.300.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	**1,21**
Indirect Emissions					**9,06**
Atmospheric Deposition	(kg N/yr)	82.619.200	(kg N2O-N/kg N)[(2)]	0,010	1,30
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	197.500.000	(kg N2O-N/kg N)[(2)]	0,025	7,76
Other *(please specify)*					**0,10**
Sewage sludge used as fertilizer	(kg N/yr)	5.300.000	(kg N2O-N/kg N)[(2)]	0,013	0,10
Industrial waste used as fertilizer	(kg N/yr)		(kg N2O-N/kg N)[(2)]	0,000	
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,14
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,32
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1995

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:
According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.128,00**	**-3.128,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.128,00**	**-3.128,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-10,00	-10,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-10,00	-10,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1995

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

	Climate [a]	land-use/ management system [a]	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
Year			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**62,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**62,70**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	62,70		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	1.957,00				0,03	#VALUE!	62,70	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

(1) Actual emissions (after recovery).

(2) CH_4 recovered and flared or utilized.

(3) Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

(a) Specify whether total or urban population is used and the rationale for doing so.

(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

(c) For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)	(kg/kg DC)	(kg/kg DC)	(Gg)	(Gg)	(Gg)
Industrial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Domestic and Commercial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC (kgCOD/m^3)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**61.129,77**	**-3.128,00**	**283,71**	**31,95**	**1.186,47**	**235,83**	**10,50**	**0,95**	**0,02**	**0,00**	**264,11**	**703,19**	**162,44**	**148,72**
1. Energy	**59.701,10**		**31,64**	**2,48**							**263,51**	**703,19**	**111,38**	**148,50**
A. Fuel Combustion — Reference Approach[2]	57.846,53													
A. Fuel Combustion — Sectoral Approach[2]	59.335,85		22,11	2,48							261,66	657,89	102,58	145,28
1. Energy Industries	32.093,13		10,94	1,08							89,61	11,07	4,10	106,43
2. Manufacturing Industries and Construction	6.705,17		1,42	0,20							23,20	14,31	4,21	22,72
3. Transport	11.774,94		3,69	0,87							110,20	450,23	75,17	4,53
4. Other Sectors	8.510,72		6,04	0,32							36,93	181,44	18,90	11,55
5. Other	251,89		0,02	0,01							1,72	0,85	0,19	0,05
B. Fugitive Emissions from Fuels	365,25		9,53	0,01							1,85	45,30	8,81	3,23
1. Solid Fuels	0,00		6,30	0,00							0,00	44,10	0,00	0,00
2. Oil and Natural Gas	365,25		3,23	0,01							1,85	1,20	8,81	3,23
2. Industrial Processes	**1.311,00**		**0,00**	**0,00**	**1.186,47**	**235,83**	**10,50**	**0,95**	**0,02**	**0,00**	**0,60**	**0,00**	**0,63**	**0,22**
A. Mineral Products	1.311,00		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,60	0,00	0,00	0,22
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,63	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					1.186,47	235,83	10,50	0,95	0,02	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**117,67**			**0,00**									**40,15**	
4. Agriculture	**0,00**	**0,00**	**189,37**	**29,46**							0,00	0,00	1,33	0,00
A. Enteric Fermentation			144,76											
B. Manure Management			44,61	1,57									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	27,89									1,33	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.128,00**	**0,00**	**0,00**							**0,00**	**0,00**	**8,95**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.128,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	8,95	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**62,70**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		62,70									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**6.940,00**		**0,15**	**0,38**							**146,39**	**13,20**	**4,03**	**76,59**
Aviation	1.867,44		0,03	0,06							7,54	1,39	0,32	0,06
Marine	5.072,56		0,11	0,32							138,85	11,81	3,72	76,53
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**6.014,23**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals		**61.129,77**	**-3.128,00**	**283,71**	**31,95**	**1.186,47**	**235,83**	**10,50**	**0,95**	**0,02**	**0,00**	**264,11**	**703,19**	**162,44**	**148,72**
1. Energy		**59.701,10**		**31,64**	**2,48**							**263,51**	**703,19**	**111,38**	**148,50**
A. Fuel Combustion	Reference Approach[2]	57.846,53													
	Sectoral Approach[2]	59.335,85		22,11	2,48							261,66	657,89	102,58	145,28
B. Fugitive Emissions from Fuels		365,25		9,53	0,01							1,85	45,30	8,81	3,23
2. Industrial Processes		**1.311,00**		**0,00**	**0,00**	**1.186,47**	**235,83**	**10,50**	**0,95**	**0,02**	**0,00**	**0,60**	**0,00**	**0,63**	**0,22**
3. Solvent and Other Product Use		**117,67**			**0,00**							**0,00**	**0,00**	**40,15**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**189,37**	**29,46**							**0,00**	**0,00**	**1,33**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.128,00**	**0,00**	**0,00**							**0,00**	**0,00**	**8,95**	**0,00**
6. Waste		**0,00**		**62,70**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.940,00**		**0,15**	**0,38**							**146,39**	**13,20**	**4,03**	**76,59**
Aviation		1.867,44		0,03	0,06							7,54	1,39	0,32	0,06
Marine		5.072,56		0,11	0,32							138,85	11,81	3,72	76,53
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.014,23**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**58.001,77**	**5.957,84**	**9.903,43**	**235,83**	**0,95**	**107,36**	**74.207,17**
1. Energy	**59.701,10**	**664,41**	**769,50**				**61.135,01**
A. Fuel Combustion (Sectoral Approach)	59.335,85	464,29	767,51				60.567,65
1. Energy Industries	32.093,13	229,83	333,44				32.656,40
2. Manufacturing Industries and Construction	6.705,17	29,79	62,42				6.797,38
3. Transport	11.774,94	77,51	269,26				12.121,71
4. Other Sectors	8.510,72	126,83	98,90				8.736,45
5. Other	251,89	0,33	3,49				255,70
B. Fugitive Emissions from Fuels	365,25	200,13	1,99				567,37
1. Solid Fuels	0,00	132,36	0,00				132,36
2. Oil and Natural Gas	365,25	67,77	1,99				435,01
2. Industrial Processes	**1.311,00**	**0,00**	**0,00**	**235,83**	**0,95**	**107,36**	**1.655,14**
A. Mineral Products	1.311,00	0,00	0,00				1.311,00
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	35,85	35,85
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				235,83	0,95	71,51	308,29
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**117,67**		**0,00**				**117,67**
4. Agriculture	**0,00**	**3.976,73**	**9.133,93**				**13.110,66**
A. Enteric Fermentation		3.040,01					3.040,01
B. Manure Management		936,72	486,54				1.423,27
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.647,38				8.647,38
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.128,00**	**0,00**	**0,00**				**-3.128,00**
6. Waste	**0,00**	**1.316,70**	**0,00**				1.316,70
A. Solid Waste Disposal on Land	0,00	1.316,70					1.316,70
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.940,00**	**3,09**	**118,91**				**7.062,00**
Aviation	1.867,44	0,67	19,96				1.888,07
Marine	5.072,56	2,41	98,95				5.173,92
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**6.014,23**						**6.014,23**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.128,00	-3.128,00			-3.128,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.128,00	-3.128,00	0,00	0,00	-3.128,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	77.335,17
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	74.207,17

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA Denmark

Recalculated year: 2003 1995

(Sheet 1 of 2) 2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**60.070,09**	**58.001,77**	**-3,44**	**6.141,94**	**5.957,84**	**-3,00**	**9.891,29**	**9.903,43**	**0,12**
1. Energy		**59.572,42**	**59.701,10**	**0,22**	**898,57**	**664,41**	**-26,06**	**757,36**	**769,50**	**1,60**
1.A.	Fuel Combustion Activities	59.230,37	59.335,85	0,18	533,75	464,29	-13,01	755,50	767,51	1,59
1.A.1.	Energy Industries	32.023,80	32.093,13	0,22	239,33	229,83	-3,97	326,24	333,44	2,21
1.A.2.	Manufacturing Industries and Construction	6.705,17	6.705,17	0,00	21,00	29,79	41,81	62,33	62,42	0,14
1.A.3.	Transport	11.764,41	11.774,94	0,09	77,06	77,51	0,59	270,41	269,26	-0,43
1.A.4.	Other Sectors	8.485,10	8.510,72	0,30	196,06	126,83	-35,31	92,68	98,90	6,71
1.A.5.	Other	251,89	251,89	0,00	0,30	0,33	9,83	3,83	3,49	-8,95
1.B.	Fugitive Emissions from Fuels	342,05	365,25	6,78	364,82	200,13	-45,14	1,86	1,99	6,79
1.B.1.	Solid fuel	0,00	0,00	0,00	131,66	132,36	0,53	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	342,05	365,25	6,78	233,16	67,77	-70,94	1,86	1,99	6,79
2. Industrial Processes		**1.311,00**	**1.311,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.311,00	1.311,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**117,67**	**117,67**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.926,68**	**3.976,73**	**1,27**	**9.133,93**	**9.133,93**	**0,00**
4.A.	Enteric Fermentation				2.992,83	3.040,01	1,58			
4.B.	Manure Management				933,84	936,72	0,31	486,54	486,54	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	8.647,38	8.647,38	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-931,00**	**-3.128,00**	**235,98**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-931,00	-3.128,00	235,98						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.316,70**	**1.316,70**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.316,70	1.316,70	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**6.953,43**	**6.940,00**	**-0,19**	**3,18**	**3,09**	**-3,07**	**119,17**	**118,91**	**-0,21**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.014,23**	**6.014,23**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**236,85**	**235,83**	**-0,43**	**0,95**	**0,95**	**0,00**	**107,36**	**107,36**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	35,85	35,85	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	236,85	235,83	-0,43	0,95	0,95	0,00	71,51	71,51	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**1.176,69**	**1.186,47**		**10,50**	**10,50**		**368,06**	**368,06**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	76.448,48	74.207,17	-2,93
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	77.379,48	77.335,17	-0,06

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1995
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			
1.A.1.b	Petroleum Refining	CO2, CH4, N2O			Fuel of a gas turbine in a refinery has been corrected (refinery gas instead of natural gas)	

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1995
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1995
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1995

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☐
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	-1,69	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1996

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**73.050,93**	**36,44**	**2,96**	**306,65**	**708,57**	**110,79**	**179,07**
A. Fuel Combustion Activities (Sectoral Approach)	**72.650,55**	**27,06**	**2,95**	**304,61**	**662,72**	**101,13**	**176,24**
1. Energy Industries	**44.412,23**	**14,65**	**1,45**	**128,47**	**13,15**	**5,35**	**144,57**
a. Public Electricity and Heat Production	42.211,82	14,54	1,39	122,48	12,35	5,29	143,44
b. Petroleum Refining	1.327,44	0,02	0,04	2,36	0,37	0,03	1,13
c. Manufacture of Solid Fuels and Other Energy Industries	872,96	0,10	0,02	3,63	0,43	0,03	0,01
2. Manufacturing Industries and Construction	**6.888,29**	**1,67**	**0,21**	**27,73**	**14,76**	**4,49**	**14,08**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.888,29	1,67	0,21	27,73	14,76	4,49	14,08
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				27,73	14,76	4,49	14,08
3. Transport	**11.975,95**	**3,95**	**0,94**	**108,27**	**449,63**	**71,57**	**3,91**
a. Civil Aviation	205,79	0,01	0,01	0,98	1,14	0,19	0,01
b. Road Transportation	10.820,93	3,86	0,89	93,41	437,94	65,69	1,72
c. Railways	301,30	0,02	0,01	2,81	0,47	0,18	0,10
d. Navigation	647,93	0,06	0,04	11,07	10,09	5,50	2,08
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**9.198,17**	**6,77**	**0,34**	**39,21**	**184,58**	**19,62**	**13,65**
a. Commercial/Institutional	1.238,85	0,69	0,04	1,40	0,95	0,52	1,66
b. Residential	5.448,51	4,05	0,19	5,41	161,50	12,53	5,63
c. Agriculture/Forestry/Fisheries	2.510,81	2,03	0,12	32,39	22,12	6,57	6,36
5. Other *(please specify)* [1]	**175,92**	**0,01**	**0,01**	**0,94**	**0,60**	**0,11**	**0,02**
a. Stationary [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile [redacted]	175,92	0,01	0,01	0,94	0,60	0,11	0,02
Emissions from military combustion of fuels	175,92	0,01	0,01	0,94	0,60	0,11	0,02
B. Fugitive Emissions from Fuels	**400,38**	**9,38**	**0,01**	**2,04**	**45,85**	**9,66**	**2,83**
1. Solid Fuels	**0,00**	**6,36**	**0,00**	**0,00**	**44,52**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)* [redacted]	0,00	6,36	0,00	0,00	44,52	0,00	0,00
Storage of solid fluid					44,52		
2. Oil and Natural Gas	**400,38**	**3,02**	**0,01**	**2,04**	**1,32**	**9,66**	**2,83**
a. Oil	0,00	0,06				8,65	2,61
b. Natural Gas	0,00	1,89				0,43	0,00
c. Venting and Flaring	400,38	1,07	0,01	2,04	1,32	0,58	0,22
Venting	0,00	0,00					0,22
Flaring	400,38	1,07	0,01	2,04	1,32	0,58	0,00
d. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.790,13**	**0,14**	**0,37**	**139,89**	**12,70**	**3,86**	**71,96**
Aviation	1.970,16	0,03	0,07	7,92	1,48	0,33	0,06
Marine	4.819,97	0,11	0,30	131,97	11,23	3,53	71,90
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**6.448,51**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**967.111,26**	NCV				**72.650,55**	**27,06**	**2,95**
Liquid Fuels	365.977,85	NCV	74,64	12,99	3,84	27.317,10	4,75	1,41
Solid Fuels	375.387,10	NCV	95,00	2,24	3,00	35.661,77	0,84	1,13
Gaseous Fuels	160.599,21	NCV	56,90	107,57	1,00	9.138,09	17,28	0,16
Biomass	64.674,09	NCV	99,71	64,06	3,93 [3]	6.448,51	4,14	0,25
Other Fuels	473,02	NCV	1.128,03	105,94	0,65	533,58	0,05	0,00
1.A.1. Energy Industries	**548.791,63**	NCV				**44.412,23**	**14,65**	**1,45**
Liquid Fuels	79.753,96	NCV	73,09	2,31	1,99	5.829,08	0,18	0,16
Solid Fuels	357.163,30	NCV	95,00	1,58	3,00	33.930,51	0,57	1,07
Gaseous Fuels	73.410,98	NCV	56,90	181,86	1,00	4.177,08	13,35	0,07
Biomass	38.463,39	NCV	98,79	14,31	3,94 [3]	3.799,78	0,55	0,15
Other Fuels	0,00	NCV	0,00	0,00	0,00	475,55	0,00	0,00
a. Public Electricity and Heat Production	510.897,03	NCV				42.211,82	14,54	1,39
Liquid Fuels	57.266,21	NCV	78,61	2,93	1,98	4.501,64	0,17	0,11
Solid Fuels	357.163,30	NCV	95,00	1,58	3,00	33.930,51	0,57	1,07
Gaseous Fuels	58.068,92	NCV	56,90	228,24	1,00	3.304,12	13,25	0,06
Biomass	38.398,59	NCV	98,82	14,32	3,94 [3]	3.794,36	0,55	0,15
Other Fuels	0,00	NCV	0,00	0,00	0,00	475,55	0,00	0,00
b. Petroleum Refining	22.487,74	NCV				1.327,44	0,02	0,04
Liquid Fuels	22.487,74	NCV	59,03	0,74	2,00	1.327,44	0,02	0,04
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	15.406,86	NCV				872,96	0,10	0,02
Liquid Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	15.342,06	NCV	56,90	6,29	1,00	872,96	0,10	0,02
Biomass	64,80	NCV	83,60	4,00	2,01 [3]	5,42	0,00	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**102.262,11**	NCV					**6.888,29**	**1,67**	**0,21**
Liquid Fuels	38.912,94	NCV	78,92	8,13	2,27		3.071,18	0,32	0,09
Solid Fuels	16.559,10	NCV	95,00	15,00	3,00		1.573,11	0,25	0,05
Gaseous Fuels	39.437,46	NCV	56,90	22,30	1,00		2.243,99	0,88	0,04
Biomass	7.352,60	NCV	101,47	31,20	3,94	[3]	746,10	0,23	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	102.262,11	NCV					6.888,29	1,67	0,21
Liquid Fuels	38.912,94	NCV	78,92	8,13	2,27		3.071,18	0,32	0,09
Solid Fuels	16.559,10	NCV	95,00	15,00	3,00		1.573,11	0,25	0,05
Gaseous Fuels	39.437,46	NCV	56,90	22,30	1,00		2.243,99	0,88	0,04
Biomass	7.352,60	NCV	101,47	31,20	3,94	[3]	746,10	0,23	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**162.962,37**	NCV					**11.975,95**	**3,95**	**0,94**
Gasoline	84.588,59	NCV	72,97	41,51	6,98		6.172,23	3,51	0,59
Diesel	77.900,76	NCV	74,06	5,03	4,53		5.769,28	0,39	0,35
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	473,02	NCV	72,79	105,94	0,65		34,43	0,05	0,00
a. Civil Aviation	2.856,51	NCV					205,79	0,01	0,01
Aviation Gasoline	121,42	NCV	73,00	21,90	2,00		8,86	0,00	0,00
Jet Kerosene	2.735,09	NCV	72,00	1,61	3,80		196,93	0,00	0,01
b. Road Transportation	147.334,71	NCV					10.820,93	3,86	0,89
Gasoline	81.732,09	NCV	73,00	42,87	7,09		5.966,44	3,50	0,58
Diesel Oil	65.590,40	NCV	74,00	5,45	4,67		4.853,69	0,36	0,31
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	12,22	NCV					0,79	0,00	0,00
	12,22	NCV	65,00	24,79	5,65		0,79	0,00	0,00
c. Railways	4.071,75	NCV					301,30	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	4.071,75	NCV	74,00	4,84	2,05		301,30	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	8.699,40	NCV					647,93	0,06	0,04
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	1.159,67	NCV	78,00	1,76	4,89		90,45	0,00	0,01
Gas/Diesel Oil	7.078,94	NCV	74,00	1,80	4,61		523,84	0,01	0,03
Other Fuels *(please specify)*	460,80	NCV					33,64	0,05	0,00
	460,80	NCV	73,00	108,10	0,52		33,64	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**153.095,16**	NCV					**9.198,17**	**6,77**	**0,34**
Liquid Fuels	84.821,60	NCV	74,27	4,01	2,48		6.299,41	0,34	0,21
Solid Fuels	1.664,70	NCV	95,00	15,00	3,00		158,15	0,02	0,00
Gaseous Fuels	47.750,76	NCV	56,90	63,77	1,00		2.717,02	3,05	0,05
Biomass	18.858,10	NCV	100,89	178,34	3,91 [3]		1.902,63	3,36	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		23,60	0,00	0,00
a. Commercial/Institutional	21.528,38	NCV					1.238,85	0,69	0,04
Liquid Fuels	7.755,10	NCV	74,51	1,86	2,01		577,84	0,01	0,02
Solid Fuels	41,70	NCV	95,00	14,99	3,00		3,96	0,00	0,00
Gaseous Fuels	11.132,68	NCV	56,90	50,13	1,00		633,45	0,56	0,01
Biomass	2.598,90	NCV	94,14	44,71	3,36 [3]		244,66	0,12	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		23,60	0,00	0,00
b. Residential	94.557,21	NCV					5.448,51	4,05	0,19
Liquid Fuels	49.550,33	NCV	73,97	4,03	2,01		3.665,08	0,20	0,10
Solid Fuels	169,70	NCV	95,00	15,00	3,00		16,12	0,00	0,00
Gaseous Fuels	31.059,98	NCV	56,90	35,25	1,00		1.767,31	1,10	0,03
Biomass	13.777,20	NCV	102,00	200,00	4,00 [3]		1.405,27	2,76	0,06
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	37.009,57	NCV					2.510,81	2,03	0,12
Liquid Fuels	27.516,17	NCV	74,74	4,58	3,47		2.056,49	0,13	0,10
Solid Fuels	1.453,30	NCV	95,00	15,00	3,00		138,06	0,02	0,00
Gaseous Fuels	5.558,10	NCV	56,90	250,48	1,00		316,26	1,39	0,01
Biomass	2.482,00	NCV	101,81	198,01	3,98 [3]		252,70	0,49	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**175,92**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		175,92	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	433.121,00	234.595,00	223.788,00		-5.380,00	449.308,00	1,00	NCV	449.308,00	20,00	8.986,16		8.986,16	1,00	32.949,25
		Orimulsion	TJ	0,00	36.699,00	0,00		-187,00	36.886,00	1,00	NCV	36.886,00	22,00	811,49		811,49	1,00	2.975,47
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		40.439,00	69.351,00	9,00	-305,00	-28.616,00	1,00	NCV	-28.616,00	18,90	-540,84		-540,84	1,00	-1.983,09
		Jet Kerosene	TJ		15.945,00	3.232,00	27.577,00	-821,00	-14.043,00	1,00	NCV	-14.043,00	19,50	-273,84		-273,84	1,00	-1.004,07
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		57.936,00	52.207,00	27.325,00	400,00	-21.996,00	1,00	NCV	-21.996,00	20,20	-444,32	0,00	-444,32	1,00	-1.629,17
		Residual Fuel Oil	TJ		38.276,00	59.852,00	35.739,00	3.122,00	-60.437,00	1,00	NCV	-60.437,00	21,10	-1.275,22		-1.275,22	1,00	-4.675,81
		LPG	TJ		594,00	3.769,00		131,00	-3.306,00	1,00	NCV	-3.306,00	17,20	-56,86	0,00	-56,86	1,00	-208,50
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.228,00	8.965,00		-194,00	-7.543,00	1,00	NCV	-7.543,00	20,00	-150,86	18,48	-169,34	1,00	-620,91
		Bitumen	TJ		9.068,00	80,00		-202,00	9.190,00	1,00	NCV	9.190,00	22,00	202,18	214,61	-12,43	1,00	-45,58
		Lubricants	TJ		2.878,00	539,00	217,00	-313,00	2.435,00	1,00	NCV	2.435,00	20,00	48,70	25,65	23,05	1,00	84,52
		Petroleum Coke	TJ		6.469,00	1.592,00		-1.138,00	6.015,00	1,00	NCV	6.015,00	27,50	165,41		165,41	1,00	606,51
		Refinery Feedstocks	TJ		4.967,00	1.739,00		-3.259,00	6.487,00	1,00	NCV	6.487,00	20,00	129,74		129,74	1,00	475,71
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												374.380,00		7.601,74	258,74	7.343,00		26.924,34
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	325.431,00	3.855,00	0,00	-50.263,00	371.839,00	1,00	NCV	371.839,00	25,80	9.593,45		9.593,45	1,00	35.175,97
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	65,00	24,00		1,00	40,00	1,00	NCV	40,00	27,60	1,10		1,10	1,00	4,05
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.071,00	1,00		-172,00	1.242,00	1,00	NCV	1.242,00	29,50	36,64		36,64	1,00	134,34
Solid Fuel Totals												373.121,00		9.631,19	0,00	9.631,19		35.314,36
Gaseous Fossil		Natural Gas (Dry)	TJ	239.199,00	0,00	71.415,00		11.422,00	156.362,00	1,00	NCV	156.362,00	15,30	2.392,34	0,00	2.392,34	1,00	8.771,91
Total												**903.863,00**		**19.625,27**	**258,74**	**19.366,53**		**71.010,60**
Biomass total												63.937,00		1.896,99	0,00	1.896,99		6.955,64
		Solid Biomass	TJ	61.401,00	486,00	0,00		0,00	61.887,00	1,00	NCV	61.887,00	29,90	1.850,42		1.850,42	1,00	6.784,88
		Liquid Biomass	TJ	60,00	0,00	0,00		0,00	60,00	1,00	NCV	60,00	20,00	1,20		1,20	1,00	4,40
		Gas Biomass	TJ	1.990,00	0,00	0,00		0,00	1.990,00	1,00	NCV	1.990,00	22,80	45,37		45,37	1,00	166,36

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	374,38	26.924,34	365,98	27.317,10	2,30	-1,44
Solid Fuels (excluding international bunkers)	373,12	35.314,36	375,39	35.661,77	-0,60	-0,97
Gaseous Fuels	156,36	8.771,91	160,60	9.138,09	-2,64	-4,01
Other [3]	-13,55	499,14	0,47	533,58	-2.965,01	-6,45
Total [3]	**890,31**	**71.509,75**	**902,44**	**72.650,55**	**-1,34**	**-1,57**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.

CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.232,00	0,75	20,00	18,48
Lubricants	2.565,00	0,50	20,00	25,65
Bitumen	9.755,00	1,00	22,00	214,61
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
67,76	
94,05	
786,90	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				6,36	0,00
	13,13	0,48	0,00	6,36	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,06**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	2.007.000	0,00	0,00			0,00	
vi. Other		Mg Crude	10.526.171	0,00	0,01			0,06	
1. B. 2. b. Natural Gas							**0,00**	**1,89**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	2.500.000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 gas	8.959	0,00	28,21			0,25	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**400,38**	**1,07**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	411.788	56,90	0,00	0,00	23,43		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	6.624.695	56,90	0,16	0,00	376,95	1,07	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**63.191,13**				**4.819,97**	**0,11**	**0,30**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	27.235,00	74,00	1,69	4,68	2.015,39	0,05	0,13
Residual Fuel Oil	35.956,13	78,00	1,76	4,89	2.804,58	0,06	0,18
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**27.363,17**				**1.970,16**	**0,03**	**0,07**
Jet Kerosene	27.353,83	72,00	1,24	2,50	1.969,48	0,03	0,07
Gasoline	9,35	73,00	21,94	2,03	0,68	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	12,10	87,90
Aviation	9,45	90,55

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.388,14**	**0,00**	**0,00**	**1.402,96**	**370,80**	**21,00**	**2,93**	**0,01**	**0,00**	**0,50**	**0,00**	**0,60**	**0,08**
A. Mineral Products	**1.388,14**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.282,06												
2. Lime Production	106,07												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,50**	**0,00**	**0,00**	**0,08**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,50			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,08
													0,08
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,60**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00											0,60	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.402,96**	**370,80**	**21,00**	**2,93**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				904,48	123,59	21,00	2,93		0,00				
2. Foam Blowing				498,48	247,22		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1996

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.388,14**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.418,99	0,53			1.282,06					
2. Lime Production	Production of Lime and Brigs	492,23	0,22			106,07					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		360,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		55,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		0,00	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**0,84**	**0,00**	**0,00**	**14,04**	**0,00**	**209,98**	**32,16**	**0,00**	**14,07**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,42**	**0,00**	**0,00**	**0,00**	**0,00**		**2,55**
C. Metal Production															**0,00**	**0,00**							**0,40**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							0,40
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**0,84**	**0,00**	**0,00**	**14,04**	**0,00**	**209,98**	**32,16**	**0,00**	**14,07**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,42**	**0,00**	**0,00**	**0,00**	**0,00**		**2,15**
1. Refrigeration and Air Conditioning Equipment		0,84			14,04		23,26	0,16		14,07							0,42						
2. Foam Blowing							186,72	32,00															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,18
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		1,97
																							1,97
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**0,55**	**0,00**	**0,00**	**39,32**	**0,00**	**272,97**	**4,50**	**0,00**	**53,46**	**0,00**	**0,00**	**0,00**	**370,80**	**0,00**	**0,00**	**2,93**	**0,00**	**0,00**	**0,00**	**0,00**	**2,93**	**60,99**
C. Metal Production															0,00	0,00						0,00	9,56
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	0,55	0,00	0,00	39,32	0,00	272,97	4,50	0,00	53,46	0,00	0,00	0,00	370,80	0,00	0,00	2,93	0,00	0,00	0,00	0,00	2,93	51,43
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	0,55	0,00	0,00	39,32	0,00	272,97	4,50	0,00	53,46	0,00	0,00	0,00	370,80	0,00	0,00	2,93	0,00	0,00	0,00	0,00	2,93	51,43
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal Production; Production of Halocarbons and SF_6
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				0,40	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	0,40	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Consumption of Halocarbons and SF_6

(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	200,00	234,72		2,00	1,00	0,00	4,00	1,65	0,00
HFC-404a	4,00	5,86		2,00	1,00	0,00	0,08	0,02	0,00
Commercial Refrigeration									
HFC-402a	18,00	33,24		1,50	10,00	0,00	0,27	1,72	0,00
Other HFCs (~410a)	20,00	32,11		1,50	10,00	0,00	0,30	1,38	0,00
Transport Refrigeration									
HFC-402a	2,00	2,82	0,00	0,50	17,00	0,00	0,01	0,17	0,00
HFC-404a	3,00	5,34	0,00	4,50	30,00	5,50	0,14	1,06	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
HFC-134a	7,00	6,70		4,50	30,00	0,00	0,32	0,00	0,00
2 Foam Blowing									
Hard Foam									
HFC-152a (refrigerators)	0,00	3,44		10,00	4,50	0,00	0,00	0,16	0,00
Soft Foam									
HFC-134a (foam plastics)	70,00	0,00	0,00	100,00	0,00	0,00	70,00	0,00	0,00
HFC-152a (foam plastics)	7,00	0,00	0,00	100,00	0,00	0,00	7,00	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1996

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,00	34,00	0,00	5,00	0,50	5,00	0,05	0,13	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	9,40	28,70	0,00	15,00	1,00	65,00	1,41	0,25	0,00
SF6 (laboratories)	0,20	0,00	0,00	100,00	0,00	0,00	0,20	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**116,48**	**0,00**	**39,72**
A. Paint Application	**75,09**		**24,09**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,35**
D. Other *(please specify)*	41,39	0,00	13,28
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	41,39		13,28

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**1,97**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**188,59**	**28,52**	**0,00**	**0,00**	**1,31**
A. Enteric Fermentation	**144,61**				
1. Cattle	124,39				
Dairy Cattle	72,87				
Non-Dairy Cattle	51,53				
2. Buffalo	NO				
3. Sheep	1,36				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,59				
7. Mules and Asses	NO				
8. Swine	16,26				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**43,98**	**1,57**			**0,00**
1. Cattle	16,28				
Dairy Cattle	14,05				
Non-Dairy Cattle	2,23				
2. Buffalo	NO				
3. Sheep	0,08				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,16				
7. Mules and Asses	NO				
8. Swine	26,71				
9. Poultry	0,76				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,23			NE
12. Solid Storage and Dry Lot		1,35			NE
13. Other *(please specify)*		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)*	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**26,95**			**1,31**
1. Direct Soil Emissions	NE	16,75			1,31
2. Animal Production	NE	1,23			NE
3. Indirect Emissions	NE	8,80			NE
4. Other *(please specify)*	0,00	0,18			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)*	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size[2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	701	264,7	6,00	104,00
Non-Dairy Cattle	1.393	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	170			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	144			18,00
7. Mules and Asses				0,00
8. Swine	10.842			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals[b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation[c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	701	100,0			550,0	2.115,0	0,2	20,05
Non-Dairy Cattle	1.393	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	170	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	144	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	10.842	100,0			76,0	110,0	0,5	2,46
9. Poultry	24.613	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1996

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system (kg N_2O-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	701								Anaerobic lagoon	0,000
Dairy Cattle	1.393								Liquid system	0,000
Sheep	249								Solid storage and dry lot	0,000
Swine	17.035								Other	0,000
Poultry	24.613									
Other *(please specify)*										
Total per AWMS[2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1996

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[(1)]

1996

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**16,75**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	290.800.000	(kg N2O-N/kg N)[(2)]	0,012	5,60
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	259.620.000	(kg N2O-N/kg N)[(2)]	0,009	3,66
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	30.380.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,60
Crop Residue	Dry production of other crops (kg dry biomass/yr)	343.600.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	6,75
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**42.180.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	**1,23**
Indirect Emissions					**8,80**
Atmospheric Deposition	(kg N/yr)	82.241.060	(kg N2O-N/kg N)[(2)]	0,010	1,29
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	191.000.000	(kg N2O-N/kg N)[(2)]	0,025	7,50
Other *(please specify)*					**0,18**
Sewage sludge used as fertilizer	(kg N/yr)	4.700.000	(kg N2O-N/kg N)[(2)]	0,013	0,09
Industrial waste used as fertilizer	(kg N/yr)	4.360.000	(kg N2O-N/kg N)[(2)]	0,013	0,09
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,14
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,32
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1996

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:
According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.134,00**	**-3.134,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.134,00**	**-3.134,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-16,00	-16,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-16,00	-16,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1996

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

	Climate [a]	land-use/ management system [a]	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
Year			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**62,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**62,10**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	62,10		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	2.507,00				0,02	#VALUE!	62,10	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

[1] Actual emissions (after recovery).

[2] CH_4 recovered and flared or utilized.

[3] Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.

[b] See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

[c] For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)	(kg/kg DC)	(kg/kg DC)	(Gg)	(Gg)	(Gg)
Industrial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Domestic and Commercial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**74.555,54**	**-3.134,00**	**287,13**	**31,48**	**1.402,96**	**370,80**	**21,00**	**2,93**	**0,01**	**0,00**	**307,15**	**708,57**	**161,37**	**179,15**
1. Energy	**73.050,93**		**36,44**	**2,96**							**306,65**	**708,57**	**110,79**	**179,07**
A. Fuel Combustion — Reference Approach[2]	71.010,60													
A. Fuel Combustion — Sectoral Approach[2]	72.650,55		27,06	2,95							304,61	662,72	101,13	176,24
1. Energy Industries	44.412,23		14,65	1,45							128,47	13,15	5,35	144,57
2. Manufacturing Industries and Construction	6.888,29		1,67	0,21							27,73	14,76	4,49	14,08
3. Transport	11.975,95		3,95	0,94							108,27	449,63	71,57	3,91
4. Other Sectors	9.198,17		6,77	0,34							39,21	184,58	19,62	13,65
5. Other	175,92		0,01	0,01							0,94	0,60	0,11	0,02
B. Fugitive Emissions from Fuels	400,38		9,38	0,01							2,04	45,85	9,66	2,83
1. Solid Fuels	0,00		6,36	0,00							0,00	44,52	0,00	0,00
2. Oil and Natural Gas	400,38		3,02	0,01							2,04	1,32	9,66	2,83
2. Industrial Processes	**1.388,14**		**0,00**	**0,00**	**1.402,96**	**370,80**	**21,00**	**2,93**	**0,01**	**0,00**	**0,50**	**0,00**	**0,60**	**0,08**
A. Mineral Products	1.388,14		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,50	0,00	0,00	0,08
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,60	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					1.402,96	370,80	21,00	2,93	0,01	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**116,48**			**0,00**									**39,72**	
4. Agriculture	**0,00**	**0,00**	**188,59**	**28,52**							0,00	0,00	1,31	0,00
A. Enteric Fermentation			144,61											
B. Manure Management			43,98	1,57									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	26,95									1,31	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.134,00**	**0,00**	**0,00**							**0,00**	**0,00**	**8,95**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.134,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	8,95	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**62,10**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		62,10									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
Memo Items: [7]														
International Bunkers	**6.790,13**		**0,14**	**0,37**							**139,89**	**12,70**	**3,86**	**71,96**
Aviation	1.970,16		0,03	0,07							7,92	1,48	0,33	0,06
Marine	4.819,97		0,11	0,30							131,97	11,23	3,53	71,90
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**6.448,51**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**74.555,54**	**-3.134,00**	**287,13**	**31,48**	**1.402,96**	**370,80**	**21,00**	**2,93**	**0,01**	**0,00**	**307,15**	**708,57**	**161,37**	**179,15**
1. Energy		**73.050,93**		**36,44**	**2,96**							**306,65**	**708,57**	**110,79**	**179,07**
A. Fuel Combustion	Reference Approach[2]	71.010,60													
	Sectoral Approach[2]	72.650,55		27,06	2,95							304,61	662,72	101,13	176,24
B. Fugitive Emissions from Fuels		400,38		9,38	0,01							2,04	45,85	9,66	2,83
2. Industrial Processes		**1.388,14**		**0,00**	**0,00**	**1.402,96**	**370,80**	**21,00**	**2,93**	**0,01**	**0,00**	**0,50**	**0,00**	**0,60**	**0,08**
3. Solvent and Other Product Use		**116,48**			**0,00**							**0,00**	**0,00**	**39,72**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**188,59**	**28,52**							**0,00**	**0,00**	**1,31**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.134,00**	**0,00**	**0,00**							**0,00**	**0,00**	**8,95**	**0,00**
6. Waste		**0,00**		**62,10**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.790,13**		**0,14**	**0,37**							**139,89**	**12,70**	**3,86**	**71,96**
Aviation		1.970,16		0,03	0,07							7,92	1,48	0,33	0,06
Marine		4.819,97		0,11	0,30							131,97	11,23	3,53	71,90
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.448,51**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**71.421,54**	**6.029,80**	**9.758,26**	**370,80**	**2,93**	**60,99**	**87.644,33**
1. Energy	**73.050,93**	**765,26**	**916,16**				**74.732,35**
A. Fuel Combustion (Sectoral Approach)	72.650,55	568,27	913,98				74.132,80
1. Energy Industries	44.412,23	307,67	451,03				45.170,92
2. Manufacturing Industries and Construction	6.888,29	35,15	63,95				6.987,39
3. Transport	11.975,95	83,01	292,43				12.351,39
4. Other Sectors	9.198,17	142,25	104,42				9.444,84
5. Other	175,92	0,19	2,14				178,25
B. Fugitive Emissions from Fuels	400,38	197,00	2,18				599,56
1. Solid Fuels	0,00	133,63	0,00				133,63
2. Oil and Natural Gas	400,38	63,37	2,18				465,92
2. Industrial Processes	**1.388,14**	**0,00**	**0,00**	**370,80**	**2,93**	**60,99**	**1.822,87**
A. Mineral Products	1.388,14	0,00	0,00				1.388,14
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	9,56	9,56
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				370,80	2,93	51,43	425,17
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**116,48**		**0,00**				**116,48**
4. Agriculture	**0,00**	**3.960,44**	**8.842,09**				**12.802,53**
A. Enteric Fermentation		3.036,79					3.036,79
B. Manure Management		923,65	486,95				1.410,60
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.355,14				8.355,14
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.134,00**	**0,00**	**0,00**				**-3.134,00**
6. Waste	**0,00**	**1.304,10**	**0,00**				1.304,10
A. Solid Waste Disposal on Land	0,00	1.304,10					1.304,10
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.790,13**	**3,01**	**115,29**				**6.908,43**
Aviation	1.970,16	0,72	21,24				1.992,12
Marine	4.819,97	2,29	94,05				4.916,31
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**6.448,51**						**6.448,51**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.134,00	-3.134,00			-3.134,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.134,00	-3.134,00	0,00	0,00	-3.134,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	90.778,33
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	87.644,33

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark

1996

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**73.573,33**	**71.421,54**	**-2,92**	**6.234,73**	**6.029,80**	**-3,29**	**9.747,85**	**9.758,26**	**0,11**
1. Energy		**73.009,71**	**73.050,93**	**0,06**	**1.019,81**	**765,26**	**-24,96**	**905,75**	**916,16**	**1,15**
1.A.	Fuel Combustion Activities	72.609,33	72.650,55	0,06	652,62	568,27	-12,92	903,57	913,98	1,15
1.A.1.	Energy Industries	44.412,23	44.412,23	0,00	316,75	307,67	-2,87	444,39	451,03	1,50
1.A.2.	Manufacturing Industries and Construction	6.888,29	6.888,29	0,00	32,88	35,15	6,91	63,88	63,95	0,12
1.A.3.	Transport	11.960,36	11.975,95	0,13	82,59	83,01	0,51	295,00	292,43	-0,87
1.A.4.	Other Sectors	9.172,55	9.198,17	0,28	220,22	142,25	-35,41	98,03	104,42	6,53
1.A.5.	Other	175,92	175,92	0,00	0,18	0,19	6,52	2,28	2,14	-6,19
1.B.	Fugitive Emissions from Fuels	400,38	400,38	0,00	367,19	197,00	-46,35	2,18	2,18	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	131,66	133,63	1,50	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	400,38	400,38	0,00	235,53	63,37	-73,10	2,18	2,18	0,00
2. Industrial Processes		**1.388,14**	**1.388,14**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.388,14	1.388,14	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**116,48**	**116,48**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.910,82**	**3.960,44**	**1,27**	**8.842,09**	**8.842,09**	**0,00**
4.A.	Enteric Fermentation				2.989,98	3.036,79	1,57			
4.B.	Manure Management				920,84	923,65	0,30	486,95	486,95	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	8.355,14	8.355,14	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-941,00**	**-3.134,00**	**233,05**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-941,00	-3.134,00	233,05						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.304,10**	**1.304,10**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.304,10	1.304,10	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**6.806,48**	**6.790,13**	**-0,24**	**3,09**	**3,01**	**-2,54**	**115,62**	**115,29**	**-0,28**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.448,51**	**6.448,51**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**375,86**	**370,80**	**-1,35**	**2,93**	**2,93**	**0,00**	**60,99**	**60,99**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	9,56	9,56	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	375,86	370,80	-1,35	2,93	2,93	0,00	51,43	51,43	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**1.393,18**	**1.402,96**		**21,00**	**21,00**		**253,34**	**253,34**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	89.995,69	87.644,33	-2,61
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	90.936,69	90.778,33	-0,17

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1996
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1996
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1996
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[(1)]

Party: Denmark **Year:** 1996

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☑			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☐			
	Completeness table:			☐			
	Trend table:			☐			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	-1,57	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

(1) For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1997

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**63.554,72**	**38,59**	**2,77**	**266,25**	**665,55**	**103,99**	**109,44**
A. Fuel Combustion Activities (Sectoral Approach)	**62.989,71**	**28,54**	**2,76**	**263,28**	**617,94**	**95,81**	**107,32**
1. Energy Industries	**35.433,35**	**15,54**	**1,17**	**87,80**	**15,38**	**5,49**	**75,90**
a. Public Electricity and Heat Production	33.194,73	15,40	1,11	81,03	14,51	5,44	74,72
b. Petroleum Refining	1.101,37	0,02	0,04	2,01	0,31	0,01	1,17
c. Manufacture of Solid Fuels and Other Energy Industries	1.137,25	0,12	0,02	4,75	0,55	0,04	0,01
2. Manufacturing Industries and Construction	**6.763,47**	**1,74**	**0,20**	**32,12**	**17,58**	**4,69**	**15,38**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.763,47	1,74	0,20	32,12	17,58	4,69	15,38
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				32,12	17,58	4,69	15,38
3. Transport	**12.102,15**	**3,79**	**1,05**	**102,47**	**400,65**	**65,26**	**3,69**
a. Civil Aviation	212,74	0,01	0,01	1,00	1,10	0,18	0,01
b. Road Transportation	11.025,95	3,70	1,00	89,09	388,78	59,20	1,75
c. Railways	292,93	0,02	0,01	2,74	0,42	0,17	0,09
d. Navigation	570,53	0,07	0,03	9,65	10,35	5,71	1,84
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.519,92**	**7,46**	**0,32**	**39,75**	**183,75**	**20,24**	**12,32**
a. Commercial/Institutional	1.056,97	0,79	0,03	1,28	0,91	0,56	1,63
b. Residential	4.880,87	4,04	0,17	4,99	159,44	12,68	5,00
c. Agriculture/Forestry/Fisheries	2.582,07	2,63	0,12	33,48	23,41	7,00	5,69
5. Other *(please specify)* [1]	**170,83**	**0,01**	**0,01**	**1,14**	**0,58**	**0,13**	**0,04**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	170,83	0,01	0,01	1,14	0,58	0,13	0,04
Emissions from military combustion of fuels	170,83	0,01	0,01	1,14	0,58	0,13	0,04
B. Fugitive Emissions from Fuels	**565,01**	**10,05**	**0,01**	**2,97**	**47,61**	**8,18**	**2,12**
1. Solid Fuels	**0,00**	**6,53**	**0,00**	**0,00**	**45,68**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	6,53	0,00	0,00	45,68	0,00	0,00
Storage of solid fluid					45,68		
2. Oil and Natural Gas	**565,01**	**3,52**	**0,01**	**2,97**	**1,93**	**8,18**	**2,12**
a. Oil	0,00	0,05				6,90	1,98
b. Natural Gas	0,00	1,92				0,44	0,00
c. Venting and Flaring	565,01	1,56	0,01	2,97	1,93	0,84	0,14
Venting	0,00	0,00					0,14
Flaring	565,01	1,56	0,01	2,97	1,93	0,84	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.428,78**	**0,13**	**0,35**	**129,08**	**11,83**	**3,57**	**65,98**
Aviation	2.009,67	0,03	0,07	8,07	1,54	0,34	0,06
Marine	4.419,11	0,10	0,28	121,01	10,29	3,24	65,92
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**6.617,41**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**867.204,37**	NCV				**62.989,71**	**28,54**	**2,76**
Liquid Fuels	349.753,14	NCV	74,80	13,11	4,24	26.162,42	4,58	1,48
Solid Fuels	280.010,53	NCV	95,00	2,32	3,00	26.601,00	0,65	0,84
Gaseous Fuels	169.726,18	NCV	56,90	112,50	1,00	9.657,42	19,09	0,17
Biomass	67.223,95	NCV	98,44	61,92	3,91 [3]	6.617,41	4,16	0,26
Other Fuels	490,58	NCV	1.159,59	107,10	0,58	568,87	0,05	0,00
1.A.1. Energy Industries	**457.318,56**	NCV				**35.433,35**	**15,54**	**1,17**
Liquid Fuels	70.998,07	NCV	73,77	2,49	1,99	5.237,37	0,18	0,14
Solid Fuels	262.977,92	NCV	95,00	1,50	3,00	24.982,90	0,39	0,79
Gaseous Fuels	82.648,82	NCV	56,90	174,35	1,00	4.702,72	14,41	0,08
Biomass	40.693,75	NCV	96,77	13,84	3,91 [3]	3.938,12	0,56	0,16
Other Fuels	0,00	NCV	0,00	0,00	0,00	510,36	0,00	0,00
a. Public Electricity and Heat Production	418.543,69	NCV				33.194,73	15,40	1,11
Liquid Fuels	52.271,92	NCV	79,12	2,94	1,99	4.136,00	0,15	0,10
Solid Fuels	262.977,92	NCV	95,00	1,50	3,00	24.982,90	0,39	0,79
Gaseous Fuels	62.662,01	NCV	56,90	228,00	1,00	3.565,47	14,29	0,06
Biomass	40.631,85	NCV	96,79	13,86	3,92 [3]	3.932,94	0,56	0,16
Other Fuels	0,00	NCV	0,00	0,00	0,00	510,36	0,00	0,00
b. Petroleum Refining	18.726,15	NCV				1.101,37	0,02	0,04
Liquid Fuels	18.726,15	NCV	58,81	1,22	2,00	1.101,37	0,02	0,04
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	20.048,72	NCV				1.137,25	0,12	0,02
Liquid Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	19.986,82	NCV	56,90	6,15	1,00	1.137,25	0,12	0,02
Biomass	61,90	NCV	83,60	4,01	2,00 [3]	5,17	0,00	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**101.853,75**	NCV					**6.763,47**	**1,74**	**0,20**
Liquid Fuels	36.361,59	NCV	79,16	8,82	2,30		2.878,43	0,32	0,08
Solid Fuels	15.584,31	NCV	95,00	15,00	3,00		1.480,51	0,23	0,05
Gaseous Fuels	42.258,85	NCV	56,90	22,47	1,00		2.404,53	0,95	0,04
Biomass	7.649,00	NCV	101,39	31,07	3,93	[3]	775,50	0,24	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	101.853,75	NCV					6.763,47	1,74	0,20
Liquid Fuels	36.361,59	NCV	79,16	8,82	2,30		2.878,43	0,32	0,08
Solid Fuels	15.584,31	NCV	95,00	15,00	3,00		1.480,51	0,23	0,05
Gaseous Fuels	42.258,85	NCV	56,90	22,47	1,00		2.404,53	0,95	0,04
Biomass	7.649,00	NCV	101,39	31,07	3,93	[3]	775,50	0,24	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**164.708,47**	NCV					**12.102,15**	**3,79**	**1,05**
Gasoline	86.704,69	NCV	72,97	38,73	8,06		6.326,60	3,36	0,70
Diesel	77.513,21	NCV	74,05	4,91	4,55		5.739,78	0,38	0,35
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	490,58	NCV	72,91	107,10	0,58		35,77	0,05	0,00
a. Civil Aviation	2.953,06	NCV					212,74	0,01	0,01
Aviation Gasoline	115,45	NCV	73,00	21,90	2,00		8,43	0,00	0,00
Jet Kerosene	2.837,61	NCV	72,00	1,52	3,73		204,31	0,00	0,01
b. Road Transportation	150.131,75	NCV					11.025,95	3,70	1,00
Gasoline	83.751,63	NCV	73,00	40,01	8,22		6.113,87	3,35	0,69
Diesel Oil	66.374,30	NCV	74,00	5,25	4,69		4.911,70	0,35	0,31
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	5,81	NCV					0,38	0,00	0,00
	5,81	NCV	65,00	24,08	5,68		0,38	0,00	0,00
c. Railways	3.958,60	NCV					292,93	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	3.958,60	NCV	74,00	4,79	2,04		292,93	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	7.665,06	NCV					570,53	0,07	0,03
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	950,48	NCV	78,00	1,76	4,89		74,14	0,00	0,00
Gas/Diesel Oil	6.229,82	NCV	74,00	1,83	4,60		461,01	0,01	0,03
Other Fuels *(please specify)*	484,76	NCV					35,39	0,05	0,00
	484,76	NCV	73,00	108,10	0,52		35,39	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS (2)				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	(1)	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**143.323,59**	NCV					**8.519,92**	**7,46**	**0,32**
Liquid Fuels	78.175,59	NCV	74,31	4,33	2,53		5.809,41	0,34	0,20
Solid Fuels	1.448,30	NCV	95,00	15,00	3,00		137,59	0,02	0,00
Gaseous Fuels	44.818,50	NCV	56,90	83,32	1,00		2.550,17	3,73	0,04
Biomass	18.881,20	NCV	100,83	178,04	3,90 (3)		1.903,79	3,36	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		22,75	0,00	0,00
a. Commercial/Institutional	18.557,30	NCV					1.056,97	0,79	0,03
Liquid Fuels	7.236,40	NCV	74,59	1,90	2,01		539,80	0,01	0,01
Solid Fuels	43,40	NCV	95,00	15,00	3,00		4,12	0,00	0,00
Gaseous Fuels	8.616,90	NCV	56,90	75,50	1,00		490,30	0,65	0,01
Biomass	2.660,60	NCV	93,85	45,80	3,31 (3)		249,70	0,12	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		22,75	0,00	0,00
b. Residential	86.425,29	NCV					4.880,87	4,04	0,17
Liquid Fuels	43.165,29	NCV	74,02	4,51	2,00		3.194,92	0,19	0,09
Solid Fuels	161,70	NCV	95,00	15,00	3,00		15,36	0,00	0,00
Gaseous Fuels	29.360,10	NCV	56,90	37,33	1,00		1.670,59	1,10	0,03
Biomass	13.738,20	NCV	102,00	200,00	4,00 (3)		1.401,30	2,75	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	38.340,99	NCV					2.582,07	2,63	0,12
Liquid Fuels	27.773,89	NCV	74,70	4,68	3,49		2.074,69	0,13	0,10
Solid Fuels	1.243,20	NCV	95,00	15,00	3,00		118,10	0,02	0,00
Gaseous Fuels	6.841,50	NCV	56,90	290,50	1,00		389,28	1,99	0,01
Biomass	2.482,40	NCV	101,84	198,25	3,98 (3)		252,80	0,49	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)(4)	**0,00**	NCV					**170,83**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		170,83	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 (3)				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

(4) Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	480.046,00	186.062,00	302.271,00		-2.230,00	366.067,00	1,00	NCV	366.067,00	20,00	7.321,34		7.321,34	1,00	26.844,91
		Orimulsion	TJ	0,00	41.607,00	3,00		992,00	40.612,00	1,00	NCV	40.612,00	22,00	893,46		893,46	1,00	3.276,03
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		50.439,00	67.222,00	8,00	-277,00	-16.514,00	1,00	NCV	-16.514,00	18,90	-312,11		-312,11	1,00	-1.144,42
		Jet Kerosene	TJ		19.279,00	5.255,00	28.182,00	164,00	-14.322,00	1,00	NCV	-14.322,00	19,50	-279,28		-279,28	1,00	-1.024,02
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		83.767,00	45.482,00	25.325,00	-366,00	13.326,00	1,00	NCV	13.326,00	20,20	269,19	0,00	269,19	1,00	987,01
		Residual Fuel Oil	TJ		32.832,00	49.276,00	32.427,00	-5.651,00	-43.220,00	1,00	NCV	-43.220,00	21,10	-911,94		-911,94	1,00	-3.343,79
		LPG	TJ		394,00	5.521,00		-166,00	-4.961,00	1,00	NCV	-4.961,00	17,20	-85,33	0,00	-85,33	1,00	-312,87
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.005,00	3.175,00		-367,00	-1.803,00	1,00	NCV	-1.803,00	20,00	-36,06	14,91	-50,97	1,00	-186,89
		Bitumen	TJ		9.651,00	285,00		323,00	9.043,00	1,00	NCV	9.043,00	22,00	198,95	214,19	-15,25	1,00	-55,90
		Lubricants	TJ		2.756,00	444,00	202,00	-125,00	2.235,00	1,00	NCV	2.235,00	20,00	44,70	24,59	20,11	1,00	73,74
		Petroleum Coke	TJ		6.498,00	2.628,00		-1.695,00	5.565,00	1,00	NCV	5.565,00	27,50	153,04		153,04	1,00	561,14
		Refinery Feedstocks	TJ		2.603,00	1.701,00		-420,00	1.322,00	1,00	NCV	1.322,00	20,00	26,44		26,44	1,00	96,95
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												357.350,00		7.282,39	253,69	7.028,70		25.771,88
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	337.314,00	2.625,00	0,00	55.704,00	278.985,00	1,00	NCV	278.985,00	25,80	7.197,81		7.197,81	1,00	26.391,98
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	68,00	23,00		-1,00	46,00	1,00	NCV	46,00	27,60	1,27		1,27	1,00	4,66
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.365,00	0,00		123,00	1.242,00	1,00	NCV	1.242,00	29,50	36,64		36,64	1,00	134,34
Solid Fuel Totals												280.273,00		7.235,72	0,00	7.235,72		26.530,98
Gaseous Fossil		Natural Gas (Dry)	TJ	295.052,00	0,00	116.867,00		13.150,00	165.035,00	1,00	NCV	165.035,00	15,30	2.525,04	0,00	2.525,04	1,00	9.258,46
Total												**802.658,00**		**17.043,15**	**253,69**	**16.789,45**		**61.561,33**
Biomass total												66.549,00		1.972,68	0,00	1.972,68		7.233,16
		Solid Biomass	TJ	63.535,00	606,00	0,00		0,00	64.141,00	1,00	NCV	64.141,00	29,90	1.917,82		1.917,82	1,00	7.031,99
		Liquid Biomass	TJ	14,00	0,00	0,00		0,00	14,00	1,00	NCV	14,00	20,00	0,28		0,28	1,00	1,03
		Gas Biomass	TJ	2.394,00	0,00	0,00		0,00	2.394,00	1,00	NCV	2.394,00	22,80	54,58		54,58	1,00	200,14

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	357,35	25.771,88	349,75	26.162,42	2,17	-1,49
Solid Fuels (excluding international bunkers)	280,27	26.530,98	280,01	26.601,00	0,09	-0,26
Gaseous Fuels	165,04	9.258,46	169,73	9.657,42	-2,76	-4,13
Other [3]	-13,19	533,11	0,49	568,87	-2.788,46	-6,29
Total [3]	**789,47**	**62.094,43**	**799,98**	**62.989,71**	**-1,31**	**-1,42**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.
[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).
[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.
CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	994,00	0,75	20,00	14,91
Lubricants	2.459,00	0,50	20,00	24,59
Bitumen	9.736,00	1,00	22,00	214,19
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
54,67	
90,16	
785,37	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				6,53	0,00
	13,47	0,48	0,00	6,53	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,05**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	2.007.000	0,00	0,00			0,00	
vi. Other		Mg Crude	7.910.000	0,00	0,01			0,05	
1. B. 2. b. Natural Gas							**0,00**	**1,92**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	2.500.000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 gas	10.232	0,00	27,63			0,28	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**565,01**	**1,56**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	266.500	56,90	0,00	0,00	15,16		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	9.663.343	56,90	0,16	0,00	549,84	1,56	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**57.954,00**				**4.419,11**	**0,10**	**0,28**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	25.325,00	74,00	1,69	4,68	1.874,05	0,04	0,12
Residual Fuel Oil	32.629,00	78,00	1,76	4,89	2.545,06	0,06	0,16
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**27.911,88**				**2.009,67**	**0,03**	**0,07**
Jet Kerosene	27.901,16	72,00	1,23	2,52	2.008,88	0,03	0,07
Gasoline	10,72	73,00	21,93	1,96	0,78	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	11,68	88,32
Aviation	9,57	90,43

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.539,32**	**0,00**	**0,00**	**1.373,11**	**392,15**	**56,00**	**7,23**	**0,01**	**0,00**	**0,57**	**0,00**	**0,57**	**0,00**
A. Mineral Products	**1.539,32**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.425,55												
2. Lime Production	113,77												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,57**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,57			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
													0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,57**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00											0,57	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.373,11**	**392,15**	**56,00**	**7,23**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				918,61	205,84	56,00	7,23		0,00				
2. Foam Blowing				454,50	186,31		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				0,00	0,00		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.								0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1997

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.539,32**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.689,72	0,53			1.425,55					
2. Lime Production	Production of Lime and Brigs	522,02	0,22			113,77					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		0,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		4,53	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**1,77**	**0,00**	**0,00**	**22,05**	**0,00**	**189,82**	**15,21**	**0,00**	**21,15**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**1,03**	**0,00**	**0,00**	**0,00**	**0,00**		**3,06**
C. Metal Production															**0,00**	**0,00**							**0,60**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							0,60
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**1,77**	**0,00**	**0,00**	**22,05**	**0,00**	**189,82**	**15,21**	**0,00**	**21,15**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**1,03**	**0,00**	**0,00**	**0,00**	**0,00**		**2,46**
1. Refrigeration and Air Conditioning Equipment		1,77			22,05		48,12	0,21		21,15							1,03						
2. Foam Blowing							141,70	15,00															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers																							
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,38
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		2,08
																							2,08
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**1,15**	**0,00**	**0,00**	**61,75**	**0,00**	**246,77**	**2,13**	**0,00**	**80,36**	**0,00**	**0,00**	**0,00**	**392,15**	**0,00**	**0,00**	**7,23**	**0,00**	**0,00**	**0,00**	**0,00**	**7,23**	**73,09**
C. Metal Production															0,00	0,00						0,00	14,34
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	1,15	0,00	0,00	61,75	0,00	246,77	2,13	0,00	80,36	0,00	0,00	0,00	392,15	0,00	0,00	7,23	0,00	0,00	0,00	0,00	7,23	58,75
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	1,15	0,00	0,00	61,75	0,00	246,77	2,13	0,00	80,36	0,00	0,00	0,00	392,15	0,00	0,00	7,23	0,00	0,00	0,00	0,00	7,23	58,75
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal Production; Production of Halocarbons and SF_6
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				0,60	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	0,60	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Consumption of Halocarbons and SF_6
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	298,00	371,99		2,00	1,00	0,00	5,96	2,35	0,00
HFC-404a	8,00	13,64		2,00	1,00	0,00	0,16	0,06	0,00
Commercial Refrigeration									
HFC-401a	26,00	25,61		1,50	10,00	0,00	0,39	0,00	0,00
HFC-402a	10,00	39,77		1,50	10,00	0,00	0,15	3,32	0,00
HFC-407c	14,00	13,79		1,50	10,00	0,00	0,21	0,00	0,00
HFC-507c	8,00	7,88		1,50	10,00	0,00	0,12	0,00	0,00
Other HFCs (~410a)	16,00	44,66		1,50	10,00	0,00	0,24	3,21	0,00
Transport Refrigeration									
HFC-402a	0,00	2,34	0,00	0,50	17,00	0,00	0,00	0,48	0,00
HFC-404a	3,00	6,60	0,00	4,50	30,00	5,50	0,14	1,60	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
HFC-134a	7,00	11,40		4,50	30,00	0,00	0,32	2,01	0,00
2 Foam Blowing									
Hard Foam									
HFC-152a (refrigerators)	0,00	3,28		10,00	4,50	0,00	0,00	0,15	0,00
HFC-152a (other use)	0,00	0,00		10,00	4,50	0,00	0,00	0,00	0,00
Soft Foam									
HFC-134a (foam plastics)	40,00	0,00	0,00	100,00	0,00	0,00	40,00	0,00	0,00
HFC-152a (foam plastics)	10,00	0,00	0,00	100,00	0,00	0,00	10,00	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1997

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	4,20	41,80	0,00	5,00	0,50	5,00	0,21	0,17	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	7,20	31,47	0,00	15,00	1,00	65,00	1,08	0,29	0,00
SF6 (laboratories)	0,60	0,00	0,00	100,00	0,00	0,00	0,60	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**115,30**	**0,00**	**39,30**
A. Paint Application	**74,41**		**23,88**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,30**
D. Other *(please specify)*	40,89	0,00	13,12
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	40,89		13,12

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**184,20**	**27,37**	**0,00**	**0,00**	**1,27**
A. Enteric Fermentation	**139,90**				
1. Cattle	119,07				
Dairy Cattle	69,72				
Non-Dairy Cattle	49,35				
2. Buffalo	NO				
3. Sheep	1,14				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,62				
7. Mules and Asses	NO				
8. Swine	17,07				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**44,30**	**1,45**			**0,00**
1. Cattle	15,28				
Dairy Cattle	13,15				
Non-Dairy Cattle	2,13				
2. Buffalo	NO				
3. Sheep	0,07				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,16				
7. Mules and Asses	NO				
8. Swine	28,07				
9. Poultry	0,72				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,21			NE
12. Solid Storage and Dry Lot		1,24			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**25,92**			**1,27**
1. Direct Soil Emissions	NE	16,79			1,27
2. Animal Production	NE	0,90			NE
3. Indirect Emissions	NE	8,06			NE
4. Other *(please specify)* [redacted]	0,00	0,18			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE

Enteric Fermentation

(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	670	264,7	6,00	104,00
Non-Dairy Cattle	1.334	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	142			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	146			18,00
7. Mules and Asses				0,00
8. Swine	11.383			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals [b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation [c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	670	100,0			550,0	2.115,0	0,2	19,61
Non-Dairy Cattle	1.334	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	142	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	146	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	11.383	100,0			76,0	110,0	0,5	2,47
9. Poultry	22.987	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1997

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1) (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	670								Anaerobic lagoon	0,000
Dairy Cattle	1.334								Liquid system	0,000
Sheep	207								Solid storage and dry lot	0,000
Swine	17.831								Other	0,000
Poultry	22.987									
Other *(please specify)*										
Total per AWMS(2)			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

(1) See footnote 1 to Table 4.A of this common reporting format.

(2) AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1997

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[(1)]

1997

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**16,79**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	287.600.000	(kg N2O-N/kg N)[(2)]	0,012	5,54
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	239.750.000	(kg N2O-N/kg N)[(2)]	0,009	3,38
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	30.710.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,60
Crop Residue	Dry production of other crops (kg dry biomass/yr)	362.700.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	7,12
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**30.850.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	**0,90**
Indirect Emissions					**8,06**
Atmospheric Deposition	(kg N/yr)	75.760.750	(kg N2O-N/kg N)[(2)]	0,010	1,19
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	174.800.000	(kg N2O-N/kg N)[(2)]	0,025	6,87
Other *(please specify)*					**0,18**
Sewage sludge used as fertilizer	(kg N/yr)	4.700.000	(kg N2O-N/kg N)[(2)]	0,013	0,09
Industrial waste used as fertilizer	(kg N/yr)	4.360.000	(kg N2O-N/kg N)[(2)]	0,013	0,09
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,11
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,31
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1997

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:

According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.142,00**	**-3.142,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.142,00**	**-3.142,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-24,00	-24,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-24,00	-24,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1997

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

Year	Climate [a]	land-use/ management system [a]	Soil type: High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**59,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**59,10**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	59,10		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	2.083,00				0,03	#VALUE!	59,10	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

(1) Actual emissions (after recovery).

(2) CH_4 recovered and flared or utilized.

(3) Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

(a) Specify whether total or urban population is used and the rationale for doing so.

(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

(c) For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Domestic and Commercial Wastewater	1.000.000,00				#VALUE!	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**65.209,34**	**-3.142,00**	**281,90**	**30,14**	**1.373,11**	**392,15**	**56,00**	**7,23**	**0,01**	**0,00**	**266,82**	**665,55**	**154,14**	**109,44**
1. Energy	**63.554,72**		**38,59**	**2,77**							**266,25**	**665,55**	**103,99**	**109,44**
A. Fuel Combustion — Reference Approach[2]	61.561,33													
A. Fuel Combustion — Sectoral Approach[2]	62.989,71		28,54	2,76							263,28	617,94	95,81	107,32
1. Energy Industries	35.433,35		15,54	1,17							87,80	15,38	5,49	75,90
2. Manufacturing Industries and Construction	6.763,47		1,74	0,20							32,12	17,58	4,69	15,38
3. Transport	12.102,15		3,79	1,05							102,47	400,65	65,26	3,69
4. Other Sectors	8.519,92		7,46	0,32							39,75	183,75	20,24	12,32
5. Other	170,83		0,01	0,01							1,14	0,58	0,13	0,04
B. Fugitive Emissions from Fuels	565,01		10,05	0,01							2,97	47,61	8,18	2,12
1. Solid Fuels	0,00		6,53	0,00							0,00	45,68	0,00	0,00
2. Oil and Natural Gas	565,01		3,52	0,01							2,97	1,93	8,18	2,12
2. Industrial Processes	**1.539,32**		**0,00**	**0,00**	**1.373,11**	**392,15**	**56,00**	**7,23**	**0,01**	**0,00**	**0,57**	**0,00**	**0,57**	**0,00**
A. Mineral Products	1.539,32		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,57	0,00	0,00	0,00
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,57	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					1.373,11	392,15	56,00	7,23	0,01	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
3. Solvent and Other Product Use	**115,30**			**0,00**									**39,30**	
4. Agriculture	**0,00**	**0,00**	**184,20**	**27,37**							0,00	0,00	1,27	0,00
A. Enteric Fermentation			139,90											
B. Manure Management			44,30	1,45									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	25,92									1,27	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.142,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,01**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.142,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,01	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**59,10**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		59,10									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
Memo Items: [7]														
International Bunkers	**6.428,78**		**0,13**	**0,35**							**129,08**	**11,83**	**3,57**	**65,98**
Aviation	2.009,67		0,03	0,07							8,07	1,54	0,34	0,06
Marine	4.419,11		0,10	0,28							121,01	10,29	3,24	65,92
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**6.617,41**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**65.209,34**	**-3.142,00**	**281,90**	**30,14**	**1.373,11**	**392,15**	**56,00**	**7,23**	**0,01**	**0,00**	**266,82**	**665,55**	**154,14**	**109,44**
1. Energy		**63.554,72**		**38,59**	**2,77**							**266,25**	**665,55**	**103,99**	**109,44**
A. Fuel Combustion	Reference Approach[2]	61.561,33													
	Sectoral Approach[2]	62.989,71		28,54	2,76							263,28	617,94	95,81	107,32
B. Fugitive Emissions from Fuels		565,01		10,05	0,01							2,97	47,61	8,18	2,12
2. Industrial Processes		**1.539,32**		**0,00**	**0,00**	**1.373,11**	**392,15**	**56,00**	**7,23**	**0,01**	**0,00**	**0,57**	**0,00**	**0,57**	**0,00**
3. Solvent and Other Product Use		**115,30**			**0,00**							**0,00**	**0,00**	**39,30**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**184,20**	**27,37**							**0,00**	**0,00**	**1,27**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.142,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,01**	**0,00**
6. Waste		**0,00**		**59,10**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.428,78**		**0,13**	**0,35**							**129,08**	**11,83**	**3,57**	**65,98**
Aviation		2.009,67		0,03	0,07							8,07	1,54	0,34	0,06
Marine		4.419,11		0,10	0,28							121,01	10,29	3,24	65,92
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.617,41**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**62.067,34**	**5.919,81**	**9.343,08**	**392,15**	**7,23**	**73,09**	**77.802,70**
1. Energy	**63.554,72**	**810,44**	**857,31**				**65.222,47**
A. Fuel Combustion (Sectoral Approach)	62.989,71	599,41	854,23				64.443,35
1. Energy Industries	35.433,35	326,43	363,37				36.123,15
2. Manufacturing Industries and Construction	6.763,47	36,57	62,82				6.862,87
3. Transport	12.102,15	79,61	326,16				12.507,92
4. Other Sectors	8.519,92	156,58	99,44				8.775,94
5. Other	170,83	0,22	2,43				173,47
B. Fugitive Emissions from Fuels	565,01	211,03	3,08				779,12
1. Solid Fuels	0,00	137,09	0,00				137,09
2. Oil and Natural Gas	565,01	73,94	3,08				642,03
2. Industrial Processes	**1.539,32**	**0,00**	**0,00**	**392,15**	**7,23**	**73,09**	**2.011,79**
A. Mineral Products	1.539,32	0,00	0,00				1.539,32
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	14,34	14,34
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				392,15	7,23	58,75	458,13
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**115,30**		**0,00**				**115,30**
4. Agriculture	**0,00**	**3.868,27**	**8.485,77**				**12.354,04**
A. Enteric Fermentation		2.937,95					2.937,95
B. Manure Management		930,32	449,69				1.380,00
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.036,08				8.036,08
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.142,00**	**0,00**	**0,00**				**-3.142,00**
6. Waste	**0,00**	**1.241,10**	**0,00**				1.241,10
A. Solid Waste Disposal on Land	0,00	1.241,10					1.241,10
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.428,78**	**2,83**	**108,02**				**6.539,62**
Aviation	2.009,67	0,73	21,78				2.032,18
Marine	4.419,11	2,10	86,23				4.507,45
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**6.617,41**						**6.617,41**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.142,00	-3.142,00			-3.142,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.142,00	-3.142,00	0,00	0,00	-3.142,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	80.944,70
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	77.802,70

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark

1997

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**64.210,22**	**62.067,34**	**-3,34**	**6.128,41**	**5.919,81**	**-3,40**	**9.334,84**	**9.343,08**	**0,09**
1. Energy		**63.506,60**	**63.554,72**	**0,08**	**1.061,82**	**810,44**	**-23,67**	**849,07**	**857,31**	**0,97**
1.A.	Fuel Combustion Activities	62.941,60	62.989,71	0,08	684,68	599,41	-12,45	845,99	854,23	0,97
1.A.1.	Energy Industries	35.433,35	35.433,35	0,00	335,72	326,43	-2,77	356,70	363,37	1,87
1.A.2.	Manufacturing Industries and Construction	6.763,47	6.763,47	0,00	34,36	36,57	6,44	62,73	62,82	0,15
1.A.3.	Transport	12.079,65	12.102,15	0,19	79,79	79,61	-0,22	330,74	326,16	-1,38
1.A.4.	Other Sectors	8.494,30	8.519,92	0,30	234,60	156,58	-33,26	93,19	99,44	6,71
1.A.5.	Other	170,83	170,83	0,00	0,21	0,22	7,20	2,63	2,43	-7,78
1.B.	Fugitive Emissions from Fuels	565,01	565,01	0,00	377,14	211,03	-44,04	3,08	3,08	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	131,66	137,09	4,13	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	565,01	565,01	0,00	245,48	73,94	-69,88	3,08	3,08	0,00
2. Industrial Processes		**1.539,32**	**1.539,32**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.539,32	1.539,32	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**115,30**	**115,30**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.825,50**	**3.868,27**	**1,12**	**8.485,77**	**8.485,77**	**0,00**
4.A.	Enteric Fermentation				2.897,64	2.937,95	1,39			
4.B.	Manure Management				927,85	930,32	0,27	449,69	449,69	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	8.036,08	8.036,08	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-951,00**	**-3.142,00**	**230,39**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-951,00	-3.142,00	230,39						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.241,10**	**1.241,10**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.241,10	1.241,10	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**6.451,20**	**6.428,78**	**-0,35**	**2,90**	**2,83**	**-2,59**	**108,35**	**108,02**	**-0,31**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.617,41**	**6.617,41**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**401,23**	**392,15**	**-2,26**	**7,23**	**7,23**	**0,00**	**73,09**	**73,09**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	14,34	14,34	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	401,23	392,15	-2,26	7,23	7,23	0,00	58,75	58,75	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**1.363,33**	**1.373,11**		**56,00**	**56,00**		**286,80**	**286,80**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	80.155,03	77.802,70	-2,93
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	81.106,03	80.944,70	-0,20

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1997
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1997
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1997
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	**Source category**	**Emissions (Gg)**	**Estimated GWP value (100-year horizon)**	**Emissions CO_2 equivalent (Gg)**	**Reference to the data source of GWP value**	**Explanation**

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1997

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	-1,42	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1998

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**58.499,71**	**35,27**	**2,64**	**239,07**	**601,92**	**97,55**	**74,36**
A. Fuel Combustion Activities (Sectoral Approach)	**58.077,45**	**28,77**	**2,63**	**236,90**	**573,14**	**90,02**	**72,85**
1. Energy Industries	**31.504,33**	**18,74**	**1,03**	**72,93**	**13,06**	**6,21**	**54,27**
a. Public Electricity and Heat Production	29.244,28	18,57	0,97	66,03	12,16	6,16	53,34
b. Petroleum Refining	951,05	0,02	0,03	1,63	0,26	0,00	0,93
c. Manufacture of Solid Fuels and Other Energy Industries	1.309,00	0,15	0,02	5,27	0,64	0,05	0,01
2. Manufacturing Industries and Construction	**6.081,49**	**1,30**	**0,18**	**27,94**	**19,38**	**4,41**	**10,13**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.081,49	1,30	0,18	27,94	19,38	4,41	10,13
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				27,94	19,38	4,41	10,13
3. Transport	**12.125,12**	**3,62**	**1,12**	**96,67**	**372,10**	**60,52**	**3,52**
a. Civil Aviation	194,38	0,01	0,01	0,92	0,98	0,17	0,01
b. Road Transportation	11.215,34	3,54	1,07	85,64	360,72	54,62	1,77
c. Railways	247,03	0,02	0,01	2,31	0,35	0,14	0,08
d. Navigation	468,37	0,06	0,03	7,80	10,05	5,59	1,67
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.162,49**	**5,10**	**0,31**	**38,07**	**167,94**	**18,73**	**4,88**
a. Commercial/Institutional	898,78	0,48	0,03	1,00	0,74	0,41	0,40
b. Residential	4.733,40	3,00	0,16	4,00	144,37	11,68	1,61
c. Agriculture/Forestry/Fisheries	2.530,31	1,62	0,12	33,07	22,83	6,65	2,87
5. Other *(please specify)* [1]	**204,03**	**0,01**	**0,01**	**1,30**	**0,65**	**0,15**	**0,04**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	204,03	0,01	0,01	1,30	0,65	0,15	0,04
Emissions from military combustion of fuels	204,03	0,01	0,01	1,30	0,65	0,15	0,04
B. Fugitive Emissions from Fuels	**422,25**	**6,50**	**0,01**	**2,17**	**28,78**	**7,53**	**1,51**
1. Solid Fuels	**0,00**	**3,47**	**0,00**	**0,00**	**27,36**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,47	0,00	0,00	27,36	0,00	0,00
Storage of solid fluid					27,36		
2. Oil and Natural Gas	**422,25**	**3,03**	**0,01**	**2,17**	**1,42**	**7,53**	**1,51**
a. Oil	0,00	0,05				6,50	1,44
b. Natural Gas	0,00	1,84				0,41	
c. Venting and Flaring	422,25	1,14	0,01	2,17	1,42	0,62	0,07
Venting	0,00	0,00					0,07
Flaring	422,25	1,14	0,01	2,17	1,42	0,62	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.587,36**	**0,14**	**0,35**	**130,07**	**11,95**	**3,60**	**60,24**
Aviation	2.158,38	0,04	0,08	8,68	1,62	0,35	0,07
Marine	4.428,98	0,10	0,28	121,39	10,33	3,25	60,17
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**6.335,78**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**814.114,59**	NCV				**58.077,45**	**28,77**	**2,63**
Liquid Fuels	336.268,72	NCV	74,70	12,98	4,52	25.120,78	4,37	1,52
Solid Fuels	233.354,51	NCV	94,94	2,26	2,93	22.154,69	0,53	0,68
Gaseous Fuels	180.201,99	NCV	56,90	106,63	1,00	10.253,49	19,21	0,18
Biomass	63.804,64	NCV	99,30	72,27	3,91 [3]	6.335,78	4,61	0,25
Other Fuels	484,73	NCV	1.131,53	107,47	0,56	548,49	0,05	0,00
1.A.1. Energy Industries	**420.141,97**	NCV				**31.504,33**	**18,74**	**1,03**
Liquid Fuels	63.846,67	NCV	73,89	2,39	1,96	4.717,92	0,15	0,13
Solid Fuels	219.612,32	NCV	94,94	1,47	2,93	20.849,18	0,32	0,64
Gaseous Fuels	95.327,35	NCV	56,90	178,67	1,00	5.424,13	17,03	0,10
Biomass	41.355,64	NCV	98,33	29,80	3,91 [3]	4.066,43	1,23	0,16
Other Fuels	0,00	NCV	0,00	0,00	0,00	513,10	0,00	0,00
a. Public Electricity and Heat Production	380.837,17	NCV				29.244,28	18,57	0,97
Liquid Fuels	47.526,86	NCV	79,23	2,88	1,95	3.765,72	0,14	0,09
Solid Fuels	219.612,32	NCV	94,94	1,47	2,93	20.849,18	0,32	0,64
Gaseous Fuels	72.342,36	NCV	56,90	233,35	1,00	4.116,28	16,88	0,07
Biomass	41.355,64	NCV	98,33	29,80	3,91 [3]	4.066,43	1,23	0,16
Other Fuels	0,00	NCV	0,00	0,00	0,00	513,10	0,00	0,00
b. Petroleum Refining	16.304,21	NCV				951,05	0,02	0,03
Liquid Fuels	16.304,21	NCV	58,33	0,97	2,00	951,05	0,02	0,03
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	23.000,60	NCV				1.309,00	0,15	0,02
Liquid Fuels	15,60	NCV	74,00	1,47	1,99	1,15	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	22.984,99	NCV	56,90	6,56	1,00	1.307,85	0,15	0,02
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**91.894,07**	NCV					**6.081,49**	**1,30**	**0,18**
Liquid Fuels	32.557,56	NCV	77,61	9,32	2,32		2.526,63	0,30	0,08
Solid Fuels	12.709,17	NCV	95,00	15,00	3,00		1.207,37	0,19	0,04
Gaseous Fuels	41.256,40	NCV	56,90	15,37	1,00		2.347,49	0,63	0,04
Biomass	5.370,95	NCV	101,69	31,54	3,97	[3]	546,17	0,17	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	91.894,07	NCV					6.081,49	1,30	0,18
Liquid Fuels	32.557,56	NCV	77,61	9,32	2,32		2.526,63	0,30	0,08
Solid Fuels	12.709,17	NCV	95,00	15,00	3,00		1.207,37	0,19	0,04
Gaseous Fuels	41.256,40	NCV	56,90	15,37	1,00		2.347,49	0,63	0,04
Biomass	5.370,95	NCV	101,69	31,54	3,97	[3]	546,17	0,17	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**165.014,51**	NCV					**12.125,12**	**3,62**	**1,12**
Gasoline	88.202,91	NCV	72,97	36,23	8,70		6.436,22	3,20	0,77
Diesel	76.326,87	NCV	74,07	4,89	4,59		5.653,55	0,37	0,35
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	484,73	NCV	72,94	107,47	0,56		35,36	0,05	0,00
a. Civil Aviation	2.698,31	NCV					194,38	0,01	0,01
Aviation Gasoline	103,55	NCV	73,00	21,90	2,00		7,56	0,00	0,00
Jet Kerosene	2.594,76	NCV	72,00	1,53	3,57		186,82	0,00	0,01
b. Road Transportation	152.714,54	NCV					11.215,34	3,54	1,07
Gasoline	85.504,60	NCV	73,00	37,30	8,86		6.241,84	3,19	0,76
Diesel Oil	67.206,33	NCV	74,00	5,16	4,71		4.973,27	0,35	0,32
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	3,61	NCV					0,23	0,00	0,00
	3,61	NCV	65,00	23,55	5,82		0,23	0,00	0,00
c. Railways	3.338,27	NCV					247,03	0,02	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	3.338,27	NCV	74,00	4,77	2,04		247,03	0,02	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	6.263,39	NCV					468,37	0,06	0,03
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	1.340,07	NCV	78,00	1,76	4,89		104,53	0,00	0,01
Gas/Diesel Oil	4.442,20	NCV	74,00	1,88	4,56		328,72	0,01	0,02
Other Fuels *(please specify)*	481,12	NCV					35,12	0,05	0,00
	481,12	NCV	73,00	108,09	0,52		35,12	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**137.064,03**	NCV					**8.162,49**	**5,10**	**0,31**
Liquid Fuels	75.334,71	NCV	74,10	4,36	2,55		5.582,44	0,33	0,19
Solid Fuels	1.033,02	NCV	95,00	15,00	3,00		98,14	0,02	0,00
Gaseous Fuels	43.618,24	NCV	56,90	35,50	1,00		2.481,88	1,55	0,04
Biomass	17.078,05	NCV	100,90	187,93	3,90 [3]		1.723,18	3,21	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,03	0,00	0,00
a. Commercial/Institutional	16.010,30	NCV					898,78	0,48	0,03
Liquid Fuels	6.201,43	NCV	74,31	1,86	2,01		460,83	0,01	0,01
Solid Fuels	2,31	NCV	95,00	15,18	3,04		0,22	0,00	0,00
Gaseous Fuels	7.692,51	NCV	56,90	31,34	1,00		437,70	0,24	0,01
Biomass	2.114,06	NCV	93,83	107,60	3,31 [3]		198,37	0,23	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,03	0,00	0,00
b. Residential	83.321,60	NCV					4.733,40	3,00	0,16
Liquid Fuels	41.321,13	NCV	73,81	4,58	2,00		3.050,05	0,19	0,08
Solid Fuels	127,15	NCV	95,00	15,00	3,00		12,08	0,00	0,00
Gaseous Fuels	29.372,08	NCV	56,90	10,69	1,00		1.671,27	0,31	0,03
Biomass	12.501,24	NCV	101,99	199,84	4,00 [3]		1.274,94	2,50	0,05
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	37.732,13	NCV					2.530,31	1,62	0,12
Liquid Fuels	27.812,15	NCV	74,48	4,60	3,50		2.071,57	0,13	0,10
Solid Fuels	903,57	NCV	95,00	15,00	3,00		85,84	0,01	0,00
Gaseous Fuels	6.553,65	NCV	56,90	151,60	1,00		372,90	0,99	0,01
Biomass	2.462,76	NCV	101,46	196,39	3,94 [3]		249,87	0,48	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**204,03**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		204,03	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	492.386,00	202.439,00	356.384,00		-2.505,00	340.946,00	1,00	NCV	340.946,00	20,00	6.818,92		6.818,92	1,00	25.002,71
		Orimulsion	TJ	0,00	33.377,00	3,00		669,00	32.705,00	1,00	NCV	32.705,00	22,00	719,51		719,51	1,00	2.638,20
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		44.687,00	51.106,00	7,00	-334,00	-6.092,00	1,00	NCV	-6.092,00	18,90	-115,14		-115,14	1,00	-422,18
		Jet Kerosene	TJ		31.722,00	4.944,00	30.331,00	5.377,00	-8.930,00	1,00	NCV	-8.930,00	19,50	-174,14		-174,14	1,00	-638,50
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		93.859,00	29.581,00	31.243,00	12.337,00	20.698,00	1,00	NCV	20.698,00	20,20	418,10	0,00	418,10	1,00	1.533,03
		Residual Fuel Oil	TJ		36.619,00	44.792,00	26.952,00	-5.120,00	-30.005,00	1,00	NCV	-30.005,00	21,10	-633,11		-633,11	1,00	-2.321,39
		LPG	TJ		643,00	3.139,00		43,00	-2.539,00	1,00	NCV	-2.539,00	17,20	-43,67	0,00	-43,67	1,00	-160,13
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		950,00	526,00		0,00	424,00	1,00	NCV	424,00	20,00	8,48	14,06	-5,58	1,00	-20,44
		Bitumen	TJ		8.227,00	298,00		-470,00	8.399,00	1,00	NCV	8.399,00	22,00	184,78	188,72	-3,94	1,00	-14,44
		Lubricants	TJ		2.618,00	358,00	189,00	-117,00	2.188,00	1,00	NCV	2.188,00	20,00	43,76	22,10	21,66	1,00	79,42
		Petroleum Coke	TJ		6.567,00	488,00		732,00	5.347,00	1,00	NCV	5.347,00	27,50	147,04		147,04	1,00	539,16
		Refinery Feedstocks	TJ		2.911,00	1.467,00		4.829,00	-3.385,00	1,00	NCV	-3.385,00	20,00	-67,70		-67,70	1,00	-248,23
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												359.756,00		7.306,84	224,87	7.081,97		25.967,22
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	202.613,00	4.275,00	0,00	-37.554,00	235.892,00	1,00	NCV	235.892,00	25,80	6.086,01		6.086,01	1,00	22.315,38
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	48,00	8,00		2,00	38,00	1,00	NCV	38,00	27,60	1,05		1,05	1,00	3,85
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.337,00	0,00		-3,00	1.340,00	1,00	NCV	1.340,00	29,50	39,53		39,53	1,00	144,94
Solid Fuel Totals												237.270,00		6.126,59	0,00	6.126,59		22.464,17
Gaseous Fossil		Natural Gas (Dry)	TJ	286.142,00	0,00	105.422,00		1.350,00	179.370,00	1,00	NCV	179.370,00	15,30	2.744,36	0,00	2.744,36	1,00	10.062,66
Total												**776.396,00**		**16.177,79**	**224,87**	**15.952,92**		**58.494,05**
Biomass total												66.119,00		1.957,86	0,00	1.957,86		7.178,83
		Solid Biomass	TJ	62.628,00	807,00	0,00		0,00	63.435,00	1,00	NCV	63.435,00	29,90	1.896,71		1.896,71	1,00	6.954,59
		Liquid Biomass	TJ	14,00	0,00	0,00		0,00	14,00	1,00	NCV	14,00	20,00	0,28		0,28	1,00	1,03
		Gas Biomass	TJ	2.670,00	0,00	0,00		0,00	2.670,00	1,00	NCV	2.670,00	22,80	60,88		60,88	1,00	223,21

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	359,76	25.967,22	336,27	25.120,78	6,98	3,37
Solid Fuels (excluding international bunkers)	237,27	22.464,17	233,35	22.154,69	1,68	1,40
Gaseous Fuels	179,37	10.062,66	180,20	10.253,49	-0,46	-1,86
Other [3]	-11,73	513,14	0,48	548,49	-2.518,86	-6,45
Total [3]	**764,67**	**59.007,18**	**750,31**	**58.077,45**	**1,91**	**1,60**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.

CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	937,00	0,75	20,00	14,06
Lubricants	2.210,00	0,50	20,00	22,10
Bitumen	8.578,00	1,00	22,00	188,72
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
51,54	
81,03	
691,96	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,47	0,00
	8,07	0,43	0,00	3,47	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,05**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	2.030.000	0,00	0,00			0,00	
vi. Other		Mg Crude	7.906.270	0,00	0,01			0,05	
1. B. 2. b. Natural Gas							**0,00**	**1,84**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	2.500.000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 gas	10.044	0,00	20,46			0,21	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**422,25**	**1,14**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	339.236	56,90	0,00	0,00	19,30		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	7.081.740	56,90	0,16	0,00	402,95	1,14	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**58.384,00**				**4.428,98**	**0,10**	**0,28**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	31.243,00	74,00	1,69	4,68	2.311,98	0,05	0,15
Residual Fuel Oil	27.141,00	78,00	1,76	4,89	2.117,00	0,05	0,13
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**29.977,40**				**2.158,38**	**0,04**	**0,08**
Jet Kerosene	29.966,70	72,00	1,19	2,51	2.157,60	0,04	0,08
Gasoline	10,70	73,00	21,87	1,96	0,78	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	9,69	90,31
Aviation	8,26	91,74

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.436,25**	**0,00**	**0,00**	**1.966,85**	**489,42**	**42,00**	**15,03**	**0,01**	**0,00**	**0,35**	**0,00**	**0,50**	**0,00**
A. Mineral Products	**1.436,25**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.332,92												
2. Lime Production	103,33												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)* [redacted]	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,35**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,35			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
													0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	$HFCs^{(1)}$		$PFCs^{(1)}$		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,50**	**0,00**
1. Pulp and Paper													
2. Food and Drink[(2)]	0,00											0,50	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.966,85**	**489,42**	**42,00**	**15,03**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				1.382,80	270,51	42,00	15,03		0,00				
2. Foam Blowing				582,74	217,34		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				1,30	1,56		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,01	0,01	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as d				0,01	0,01			0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[(2)] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1998

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.436,25**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.527,67	0,53			1.332,92					
2. Lime Production	Production of Lime and Brigs	512,18	0,20			103,33					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		0,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		4,53	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	$c\text{-}C_4F_8$	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**2,72**	**0,00**	**0,00**	**29,10**	**0,00**	**229,95**	**9,66**	**0,00**	**27,86**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**2,15**	**0,00**	**0,00**	**0,00**	**0,00**		**2,49**
C. Metal Production															**0,00**	**0,00**							**0,70**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							0,70
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**2,72**	**0,00**	**0,00**	**29,10**	**0,00**	**229,95**	**9,66**	**0,00**	**27,86**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**2,15**	**0,00**	**0,00**	**0,00**	**0,00**		**1,79**
1. Refrigeration and Air Conditioning Equipment		2,72			29,10		62,54	0,51		27,86							2,15						
2. Foam Blowing							166,20	9,15															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							1,20																
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,27
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		1,52
							0,01																1,52
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**1,77**	**0,00**	**0,00**	**81,49**	**0,00**	**298,94**	**1,35**	**0,00**	**105,87**	**0,00**	**0,00**	**0,00**	**489,42**	**0,00**	**0,00**	**15,03**	**0,00**	**0,00**	**0,00**	**0,00**	**15,03**	**59,46**
C. Metal Production															0,00	0,00						0,00	16,73
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	1,77	0,00	0,00	81,49	0,00	298,94	1,35	0,00	105,87	0,00	0,00	0,00	489,42	0,00	0,00	15,03	0,00	0,00	0,00	0,00	15,03	42,73
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	1,77	0,00	0,00	81,49	0,00	298,94	1,35	0,00	105,87	0,00	0,00	0,00	489,42	0,00	0,00	15,03	0,00	0,00	0,00	0,00	15,03	42,73
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

1998

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				0,70	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	0,70	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES Denmark
Consumption of Halocarbons and SF_6 1998
(Sheet 1 of 2) 2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	257,00	479,16		2,00	1,00	0,00	5,14	3,72	0,00
HFC-404a	14,00	27,22		2,00	1,00	0,00	0,28	0,14	0,00
Commercial Refrigeration									
HFC-401a	15,00	35,26		1,50	10,00	0,00	0,23	2,56	0,00
HFC-402a	8,00	43,67		1,50	10,00	0,00	0,12	3,98	0,00
HFC-407c	17,00	29,16		1,50	10,00	0,00	0,26	1,38	0,00
HFC-507c	10,00	16,94		1,50	10,00	0,00	0,15	0,79	0,00
Andre HFC (410a)	15,00	54,97		1,50	10,00	0,00	0,23	4,47	0,00
Transport Refrigeration									
HFC-402a	2,00	3,93	0,00	0,50	17,00	0,00	0,01	0,40	0,00
HFC-404a	26,00	29,45	0,00	4,50	30,00	5,50	1,17	1,98	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
HFC-134a	89,00	120,70		4,50	30,00	0,00	4,01	3,42	0,00
2 Foam Blowing									
Hard Foam									
HFC-152a (refrigerators)	0,00	3,14		10,00	4,50	0,00	0,00	0,15	0,00
HFC-152a (other use)	14,00	12,60		10,00	4,50	0,00	1,40	0,00	0,00
Soft Foam									
HFC-134a (foam plastics)	38,00	0,00	0,00	100,00	0,00	0,00	38,00	0,00	0,00
HFC-134a (joint filler)	10,00	0,00	0,00	100,00	0,00	0,00	10,00	0,00	0,00
HFC-152a (joint filler)	0,75	0,00	0,00	100,00	0,00	0,00	0,75	0,00	0,00
HFC-152a (foam plastics)	7,00	0,00	0,00	100,00	0,00	0,00	7,00	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.
[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1998

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
HFC-134a (Aerosol spray)	1,00	1,20		0,00			0,00	0,60	
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	1,15	49,60	0,00	5,00	0,50	5,00	0,06	0,21	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	7,30	36,16	0,00	15,00	1,00	65,00	1,10	0,31	0,00
SF6 (laboratories)	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas. No registered amount used this year.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**114,11**	**0,00**	**38,86**
A. Paint Application	**73,73**		**23,66**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,25**
D. Other *(please specify)*	40,38	0,00	12,96
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	40,38		12,96

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**185,59**	**27,62**	**0,00**	**0,00**	**1,22**
A. Enteric Fermentation	**140,03**				
1. Cattle	117,99				
Dairy Cattle	69,58				
Non-Dairy Cattle	48,41				
2. Buffalo	NO				
3. Sheep	1,25				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,65				
7. Mules and Asses	NO				
8. Swine	18,14				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**45,57**	**1,50**			**0,00**
1. Cattle	15,00				
Dairy Cattle	12,90				
Non-Dairy Cattle	2,09				
2. Buffalo	NO				
3. Sheep	0,07				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,16				
7. Mules and Asses	NO				
8. Swine	29,66				
9. Poultry	0,68				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,22			NE
12. Solid Storage and Dry Lot		1,29			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**26,12**			**1,22**
1. Direct Soil Emissions	NE	16,91			1,22
2. Animal Production	NE	0,83			NE
3. Indirect Emissions	NE	8,09			NE
4. Other *(please specify)* [redacted]	0,00	0,28			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size[2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	669	264,7	6,00	104,00
Non-Dairy Cattle	1.308	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	156			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	147			18,00
7. Mules and Asses				0,00
8. Swine	12.095			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals[b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation[c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	669	100,0			550,0	2.115,0	0,2	19,29
Non-Dairy Cattle	1.308	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	156	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	147	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	12.095	100,0			76,0	110,0	0,5	2,45
9. Poultry	22.295	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1998

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size (1) (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	669								Anaerobic lagoon	0,000
Dairy Cattle	1.308								Liquid system	0,000
Sheep	226								Solid storage and dry lot	0,000
Swine	20.719								Other	0,000
Poultry	22.295									
Other *(please specify)*										
Total per AWMS(2)			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

(1) See footnote 1 to Table 4.A of this common reporting format.

(2) AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1998

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[1]

1998

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION Description	Value	IMPLIED EMISSION FACTORS Unit		EMISSIONS ($Gg N_2O$)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**16,91**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	283.200.000	(kg N2O-N/kg N)[2]	0,012	5,45
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	248.330.000	(kg N2O-N/kg N)[2]	0,009	3,50
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	32.190.000	(kg N2O-N/kg dry biomass)[2]	0,012	0,63
Crop Residue	Dry production of other crops (kg dry biomass/yr)	365.770.000	(kg N2O-N/kg dry biomass)[2]	0,013	7,18
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.440	(kg N2O-N/ha)[2]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**28.470.000**	**(kg N2O-N/kg N)[2]**	**0,019**	**0,83**
Indirect Emissions					**8,09**
Atmospheric Deposition	(kg N/yr)	77.934.000	(kg N2O-N/kg N)[2]	0,010	1,22
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	174.800.000	(kg N2O-N/kg N)[2]	0,025	6,87
Other *(please specify)*					**0,28**
Sewage sludge used as fertilizer	(kg N/yr)	4.020.000	(kg N2O-N/kg N)[2]	0,013	0,08
Industrial waste used as fertilizer	(kg N/yr)	10.460.000	(kg N2O-N/kg N)[2]	0,013	0,21
				0,000	

Additional information

Fraction [a]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,10
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,31
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[a] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[1] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[2] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Prescribed Burning of Savannas

(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:
According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.152,00**	**-3.152,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.152,00**	**-3.152,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-34,00	-34,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-34,00	-34,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1998

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

Year	Climate [a]	land-use/ management system [a]	Soil type: High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**55,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**55,40**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	55,40		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	2.000,10				0,03	#VALUE!	55,40	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

[1] Actual emissions (after recovery).

[2] CH_4 recovered and flared or utilized.

[3] Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.

[b] See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

[c] For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**60.050,07**	**-3.152,00**	**276,26**	**30,26**	**1.966,85**	**489,42**	**42,00**	**15,03**	**0,01**	**0,00**	**239,42**	**601,92**	**147,15**	**74,36**
1. Energy	**58.499,71**		**35,27**	**2,64**							**239,07**	**601,92**	**97,55**	**74,36**
A. Fuel Combustion — Reference Approach[2]	58.494,05													
A. Fuel Combustion — Sectoral Approach[2]	58.077,45		28,77	2,63							236,90	573,14	90,02	72,85
1. Energy Industries	31.504,33		18,74	1,03							72,93	13,06	6,21	54,27
2. Manufacturing Industries and Construction	6.081,49		1,30	0,18							27,94	19,38	4,41	10,13
3. Transport	12.125,12		3,62	1,12							96,67	372,10	60,52	3,52
4. Other Sectors	8.162,49		5,10	0,31							38,07	167,94	18,73	4,88
5. Other	204,03		0,01	0,01							1,30	0,65	0,15	0,04
B. Fugitive Emissions from Fuels	422,25		6,50	0,01							2,17	28,78	7,53	1,51
1. Solid Fuels	0,00		3,47	0,00							0,00	27,36	0,00	0,00
2. Oil and Natural Gas	422,25		3,03	0,01							2,17	1,42	7,53	1,51
2. Industrial Processes	**1.436,25**		**0,00**	**0,00**	**1.966,85**	**489,42**	**42,00**	**15,03**	**0,01**	**0,00**	**0,35**	**0,00**	**0,50**	**0,00**
A. Mineral Products	1.436,25		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,35	0,00	0,00	0,00
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,50	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					1.966,85	489,42	42,00	15,03	0,01	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**114,11**			**0,00**									**38,86**	
4. Agriculture	**0,00**	**0,00**	**185,59**	**27,62**							0,00	0,00	1,22	0,00
A. Enteric Fermentation			140,03											
B. Manure Management			45,57	1,50									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	26,12									1,22	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.152,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,01**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.152,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,01	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**55,40**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		55,40									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**6.587,36**		**0,14**	**0,35**							**130,07**	**11,95**	**3,60**	**60,24**
Aviation	2.158,38		0,04	0,08							8,68	1,62	0,35	0,07
Marine	4.428,98		0,10	0,28							121,39	10,33	3,25	60,17
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**6.335,78**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**60.050,07**	**-3.152,00**	**276,26**	**30,26**	**1.966,85**	**489,42**	**42,00**	**15,03**	**0,01**	**0,00**	**239,42**	**601,92**	**147,15**	**74,36**
1. Energy		**58.499,71**		**35,27**	**2,64**							**239,07**	**601,92**	**97,55**	**74,36**
A. Fuel Combustion	Reference Approach[2]	58.494,05													
	Sectoral Approach[2]	58.077,45		28,77	2,63							236,90	573,14	90,02	72,85
B. Fugitive Emissions from Fuels		422,25		6,50	0,01							2,17	28,78	7,53	1,51
2. Industrial Processes		**1.436,25**		**0,00**	**0,00**	**1.966,85**	**489,42**	**42,00**	**15,03**	**0,01**	**0,00**	**0,35**	**0,00**	**0,50**	**0,00**
3. Solvent and Other Product Use		**114,11**			**0,00**							**0,00**	**0,00**	**38,86**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**185,59**	**27,62**							**0,00**	**0,00**	**1,22**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.152,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,01**	**0,00**
6. Waste		**0,00**		**55,40**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.587,36**		**0,14**	**0,35**							**130,07**	**11,95**	**3,60**	**60,24**
Aviation		2.158,38		0,04	0,08							8,68	1,62	0,35	0,07
Marine		4.428,98		0,10	0,28							121,39	10,33	3,25	60,17
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.335,78**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**56.898,07**	**5.801,51**	**9.381,82**	**489,42**	**15,03**	**59,46**	**72.645,31**
1. Energy	**58.499,71**	**740,66**	**819,01**				**60.059,38**
A. Fuel Combustion (Sectoral Approach)	58.077,45	604,21	816,71				59.498,37
1. Energy Industries	31.504,33	393,52	318,01				32.215,86
2. Manufacturing Industries and Construction	6.081,49	27,25	54,60				6.163,34
3. Transport	12.125,12	76,04	346,41				12.547,57
4. Other Sectors	8.162,49	107,15	94,80				8.364,44
5. Other	204,03	0,25	2,88				207,16
B. Fugitive Emissions from Fuels	422,25	136,45	2,30				561,00
1. Solid Fuels	0,00	72,88	0,00				72,88
2. Oil and Natural Gas	422,25	63,57	2,30				488,12
2. Industrial Processes	**1.436,25**	**0,00**	**0,00**	**489,42**	**15,03**	**59,46**	**2.000,16**
A. Mineral Products	1.436,25	0,00	0,00				1.436,25
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	16,73	16,73
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				489,42	15,03	42,73	547,19
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**114,11**		**0,00**				**114,11**
4. Agriculture	**0,00**	**3.897,43**	**8.562,81**				**12.460,25**
A. Enteric Fermentation		2.940,56					2.940,56
B. Manure Management		956,88	465,78				1.422,66
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.097,04				8.097,04
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.152,00**	**0,00**	**0,00**				**-3.152,00**
6. Waste	**0,00**	**1.163,42**	**0,00**				1.163,42
A. Solid Waste Disposal on Land	0,00	1.163,42					1.163,42
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.587,36**	**2,86**	**109,83**				**6.700,06**
Aviation	2.158,38	0,76	23,32				2.182,46
Marine	4.428,98	2,11	86,51				4.517,60
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**6.335,78**						**6.335,78**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.152,00	-3.152,00			-3.152,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.152,00	-3.152,00	0,00	0,00	-3.152,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	75.797,31
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	72.645,31

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark

1998

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[(1)]	Previous submission	Latest submission	Difference[(1)]	Previous submission	Latest submission	Difference[(1)]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**59.041,98**	**56.898,07**	**-3,63**	**6.025,79**	**5.801,51**	**-3,72**	**9.372,71**	**9.381,82**	**0,10**
1. Energy		**58.455,62**	**58.499,71**	**0,08**	**1.008,58**	**740,66**	**-26,56**	**809,89**	**819,01**	**1,13**
1.A.	Fuel Combustion Activities	58.033,37	58.077,45	0,08	688,51	604,21	-12,24	807,59	816,71	1,13
1.A.1.	Energy Industries	31.506,24	31.504,33	-0,01	410,69	393,52	-4,18	312,76	318,01	1,68
1.A.2.	Manufacturing Industries and Construction	6.081,49	6.081,49	0,00	24,58	27,25	10,88	54,57	54,60	0,07
1.A.3.	Transport	12.102,22	12.125,12	0,19	75,89	76,04	0,20	348,15	346,41	-0,50
1.A.4.	Other Sectors	8.139,38	8.162,49	0,28	177,11	107,15	-39,50	89,01	94,80	6,51
1.A.5.	Other	204,03	204,03	0,00	0,24	0,25	6,00	3,11	2,88	-7,13
1.B.	Fugitive Emissions from Fuels	422,25	422,25	0,00	320,07	136,45	-57,37	2,30	2,30	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	83,35	72,88	-12,56	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	422,25	422,25	0,00	236,73	63,57	-73,15	2,30	2,30	0,00
2. Industrial Processes		**1.436,25**	**1.436,25**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.436,25	1.436,25	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**114,11**	**114,11**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.853,80**	**3.897,43**	**1,13**	**8.562,81**	**8.562,81**	**0,00**
4.A.	Enteric Fermentation				2.899,43	2.940,56	1,42			
4.B.	Manure Management				954,37	956,88	0,26	465,78	465,78	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [(2)]			0,00	0,00	0,00	0,00	8.097,04	8.097,04	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-964,00**	**-3.152,00**	**226,97**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-964,00	-3.152,00	226,97						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[(1)] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[(2)] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.163,42**	**1.163,42**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.163,42	1.163,42	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other ***(please specify)***		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**6.614,00**	**6.587,36**	**-0,40**	**2,96**	**2,86**	**-3,21**	**110,19**	**109,83**	**-0,33**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.336,83**	**6.335,78**	**-0,02**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions		**502,64**	**489,42**	**-2,63**	**15,03**	**15,03**	**0,00**	**59,46**	**59,46**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	16,73	16,73	0,00
2.E.	Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF_6	502,64	489,42	-2,63	15,03	15,03	0,00	42,73	42,73	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6		**1.882,09**	**1.966,85**		**42,00**	**42,00**		**201,96**	**201,96**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	75.017,61	72.645,31	-3,16
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	75.981,61	75.797,31	-0,24

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1998
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1998
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1998
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1998

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☐
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☐			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	1,60	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

1999

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**55.764,37**	**37,40**	**2,61**	**219,30**	**572,04**	**95,19**	**53,99**
A. Fuel Combustion Activities (Sectoral Approach)	**54.861,63**	**29,61**	**2,60**	**214,53**	**544,78**	**87,33**	**52,57**
1. Energy Industries	**28.249,93**	**17,36**	**0,95**	**60,38**	**11,94**	**5,82**	**36,37**
a. Public Electricity and Heat Production	25.912,11	17,19	0,89	53,21	11,00	5,76	35,83
b. Petroleum Refining	979,72	0,00	0,03	1,50	0,27	0,01	0,53
c. Manufacture of Solid Fuels and Other Energy Industries	1.358,10	0,16	0,02	5,68	0,67	0,05	0,01
2. Manufacturing Industries and Construction	**6.128,61**	**1,64**	**0,19**	**27,93**	**18,16**	**4,65**	**8,75**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	6.128,61	1,64	0,19	27,93	18,16	4,65	8,75
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				27,93	18,16	4,65	8,75
3. Transport	**12.182,19**	**3,99**	**1,16**	**85,77**	**354,60**	**58,16**	**2,84**
a. Civil Aviation	173,65	0,01	0,01	0,82	0,94	0,16	0,01
b. Road Transportation	11.350,20	3,90	1,12	75,77	342,99	52,07	1,09
c. Railways	232,13	0,01	0,01	2,17	0,33	0,14	0,04
d. Navigation	426,21	0,06	0,02	7,01	10,34	5,79	1,71
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**8.118,55**	**6,61**	**0,29**	**39,45**	**159,38**	**18,57**	**4,59**
a. Commercial/Institutional	949,77	0,92	0,03	1,33	0,88	0,54	0,46
b. Residential	4.598,83	3,15	0,15	3,92	133,63	10,28	1,50
c. Agriculture/Forestry/Fisheries	2.569,94	2,54	0,12	34,20	24,88	7,76	2,62
5. Other *(please specify)* [1]	**182,35**	**0,01**	**0,01**	**1,00**	**0,69**	**0,13**	**0,02**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	182,35	0,01	0,01	1,00	0,69	0,13	0,02
Emissions from military combustion of fuels	182,35	0,01	0,01	1,00	0,69	0,13	0,02
B. Fugitive Emissions from Fuels	**902,74**	**7,79**	**0,02**	**4,78**	**27,26**	**7,86**	**1,41**
1. Solid Fuels	**0,00**	**3,37**	**0,00**	**0,00**	**24,16**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,37	0,00	0,00	24,16	0,00	0,00
Storage of solid fluid					24,16		
2. Oil and Natural Gas	**902,74**	**4,42**	**0,02**	**4,78**	**3,10**	**7,86**	**1,41**
a. Oil	0,00	0,05				6,09	1,36
b. Natural Gas	0,00	1,87				0,42	0,00
c. Venting and Flaring	902,74	2,50	0,02	4,78	3,10	1,35	0,05
Venting	0,00	0,00					0,05
Flaring	902,74	2,50	0,02	4,78	3,10	1,35	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.456,90**	**0,13**	**0,34**	**123,36**	**11,40**	**3,41**	**60,65**
Aviation	2.290,47	0,04	0,08	9,23	1,70	0,35	0,07
Marine	4.166,42	0,09	0,26	114,13	9,71	3,05	60,58
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**6.351,58**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**782.014,29**	NCV				**54.861,63**	**29,61**	**2,60**
Liquid Fuels	331.619,87	NCV	74,67	14,31	4,71	24.762,07	4,74	1,56
Solid Fuels	197.985,45	NCV	95,00	2,39	3,00	18.808,62	0,47	0,59
Gaseous Fuels	187.958,73	NCV	56,90	107,21	1,00	10.694,85	20,15	0,19
Biomass	63.946,20	NCV	99,33	65,52	3,92 [3]	6.351,58	4,19	0,25
Other Fuels	504,04	NCV	1.182,61	107,84	0,54	596,08	0,05	0,00
1.A.1. Energy Industries	**388.353,36**	NCV				**28.249,93**	**17,36**	**0,95**
Liquid Fuels	61.423,25	NCV	73,61	2,18	2,00	4.521,21	0,13	0,12
Solid Fuels	184.918,93	NCV	95,00	1,50	3,00	17.567,30	0,28	0,55
Gaseous Fuels	98.956,29	NCV	56,90	158,44	1,00	5.630,61	15,68	0,10
Biomass	43.054,89	NCV	98,59	29,44	3,92 [3]	4.244,89	1,27	0,17
Other Fuels	0,00	NCV	0,00	0,00	0,00	530,80	0,00	0,00
a. Public Electricity and Heat Production	347.642,10	NCV				25.912,11	17,19	0,89
Liquid Fuels	44.609,25	NCV	79,39	2,94	2,00	3.541,50	0,13	0,09
Solid Fuels	184.918,93	NCV	95,00	1,50	3,00	17.567,30	0,28	0,55
Gaseous Fuels	75.088,06	NCV	56,90	206,80	1,00	4.272,51	15,53	0,08
Biomass	43.025,86	NCV	98,60	29,16	3,92 [3]	4.242,47	1,25	0,17
Other Fuels	0,00	NCV	0,00	0,00	0,00	530,80	0,00	0,00
b. Petroleum Refining	16.814,00	NCV				979,72	0,00	0,03
Liquid Fuels	16.814,00	NCV	58,27	0,18	2,00	979,72	0,00	0,03
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	23.897,26	NCV				1.358,10	0,16	0,02
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	23.868,23	NCV	56,90	6,31	1,00	1.358,10	0,15	0,02
Biomass	29,03	NCV	83,60	433,99	2,00 [3]	2,43	0,01	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**93.472,86**	NCV				**6.128,61**	**1,64**	**0,19**
Liquid Fuels	31.966,62	NCV	78,21	10,26	2,60	2.499,97	0,33	0,08
Solid Fuels	12.175,80	NCV	95,00	15,00	3,00	1.156,70	0,18	0,04
Gaseous Fuels	43.443,72	NCV	56,90	21,72	1,00	2.471,95	0,94	0,04
Biomass	5.886,73	NCV	101,85	31,79	3,98 [3]	599,54	0,19	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
a. Iron and Steel	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
b. Non-Ferrous Metals	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Chemicals	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
d. Pulp, Paper and Print	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
e. Food Processing, Beverages and Tobacco	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00			
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
f. Other *(please specify)*	93.472,86	NCV				6.128,61	1,64	0,19
Liquid Fuels	31.966,62	NCV	78,21	10,26	2,60	2.499,97	0,33	0,08
Solid Fuels	12.175,80	NCV	95,00	15,00	3,00	1.156,70	0,18	0,04
Gaseous Fuels	43.443,72	NCV	56,90	21,72	1,00	2.471,95	0,94	0,04
Biomass	5.886,73	NCV	101,85	31,79	3,98 [3]	599,54	0,19	0,02
Other Fuels	0,00	NCV	0,00	0,00	0,00			

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**165.766,38**	NCV					**12.182,19**	**3,99**	**1,16**
Gasoline	87.437,79	NCV	72,97	40,72	9,12		6.380,65	3,56	0,80
Diesel	77.824,55	NCV	74,07	4,80	4,66		5.764,75	0,37	0,36
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	504,04	NCV	72,98	107,84	0,54		36,78	0,05	0,00
a. Civil Aviation	2.410,43	NCV					173,65	0,01	0,01
Aviation Gasoline	102,68	NCV	73,00	21,90	2,00		7,50	0,00	0,00
Jet Kerosene	2.307,75	NCV	72,00	1,43	3,62		166,16	0,00	0,01
b. Road Transportation	154.530,23	NCV					11.350,20	3,90	1,12
Gasoline	85.027,36	NCV	73,00	41,81	9,28		6.207,00	3,56	0,79
Diesel Oil	69.501,32	NCV	74,00	5,02	4,78		5.143,10	0,35	0,33
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	1,55	NCV					0,10	0,00	0,00
	1,55	NCV	65,00	24,48	5,80		0,10	0,00	0,00
c. Railways	3.136,90	NCV					232,13	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	3.136,90	NCV	74,00	4,78	2,04		232,13	0,01	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	5.688,82	NCV					426,21	0,06	0,02
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	1.434,90	NCV	78,00	1,76	4,90		111,92	0,00	0,01
Gas/Diesel Oil	3.751,43	NCV	74,00	1,94	4,55		277,61	0,01	0,02
Other Fuels *(please specify)*	502,49	NCV					36,68	0,05	0,00
	502,49	NCV	73,00	108,10	0,52		36,68	0,05	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**134.421,69**	NCV					**8.118,55**	**6,61**	**0,29**
Liquid Fuels	72.967,67	NCV	74,19	4,63	2,58		5.413,14	0,34	0,19
Solid Fuels	890,73	NCV	95,00	15,00	3,00		84,62	0,01	0,00
Gaseous Fuels	45.558,72	NCV	56,90	77,45	1,00		2.592,29	3,53	0,05
Biomass	15.004,58	NCV	100,45	182,30	3,88 [3]		1.507,15	2,74	0,06
Other Fuels	0,00	NCV	0,00	0,00	0,00		28,50	0,00	0,00
a. Commercial/Institutional	17.100,20	NCV					949,77	0,92	0,03
Liquid Fuels	6.520,11	NCV	74,27	1,75	2,01		484,25	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	7.680,48	NCV	56,90	78,78	1,00		437,02	0,61	0,01
Biomass	2.899,60	NCV	94,31	106,05	3,40 [3]		273,47	0,31	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		28,50	0,00	0,00
b. Residential	78.765,42	NCV					4.598,83	3,15	0,15
Liquid Fuels	38.090,11	NCV	74,03	4,98	2,00		2.819,96	0,19	0,08
Solid Fuels	182,35	NCV	95,00	15,00	3,00		17,32	0,00	0,00
Gaseous Fuels	30.958,71	NCV	56,90	34,06	1,00		1.761,55	1,05	0,03
Biomass	9.534,24	NCV	102,00	200,00	4,00 [3]		972,49	1,91	0,04
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	38.556,08	NCV					2.569,94	2,54	0,12
Liquid Fuels	28.357,44	NCV	74,37	4,81	3,50		2.108,92	0,14	0,10
Solid Fuels	708,37	NCV	95,00	15,00	3,00		67,30	0,01	0,00
Gaseous Fuels	6.919,53	NCV	56,90	270,15	1,00		393,72	1,87	0,01
Biomass	2.570,74	NCV	101,60	202,64	3,96 [3]		261,18	0,52	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**182,35**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		182,35	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	622.895,00	194.807,00	473.627,00		6.085,00	337.990,00	1,00	NCV	337.990,00	20,00	6.759,80		6.759,80	1,00	24.785,93
		Orimulsion	TJ	0,00	33.079,00	0,00		-1.112,00	34.191,00	1,00	NCV	34.191,00	22,00	752,20		752,20	1,00	2.758,07
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		41.064,00	50.826,00	4,00	474,00	-10.240,00	1,00	NCV	-10.240,00	18,90	-193,54		-193,54	1,00	-709,63
		Jet Kerosene	TJ		23.169,00	14.114,00	32.061,00	-4.074,00	-18.932,00	1,00	NCV	-18.932,00	19,50	-369,17		-369,17	1,00	-1.353,64
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		83.039,00	50.248,00	26.085,00	-12.342,00	19.048,00	1,00	NCV	19.048,00	20,20	384,77	0,00	384,77	1,00	1.410,82
		Residual Fuel Oil	TJ		26.636,00	50.531,00	28.526,00	-11.246,00	-41.175,00	1,00	NCV	-41.175,00	21,10	-868,79		-868,79	1,00	-3.185,57
		LPG	TJ		219,00	3.953,00		-76,00	-3.658,00	1,00	NCV	-3.658,00	17,20	-62,92	0,00	-62,92	1,00	-230,70
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.106,00	48,00		-2,00	1.060,00	1,00	NCV	1.060,00	20,00	21,20	15,86	5,35	1,00	19,60
		Bitumen	TJ		9.457,00	338,00		249,00	8.870,00	1,00	NCV	8.870,00	22,00	195,14	203,41	-8,27	1,00	-30,33
		Lubricants	TJ		2.541,00	390,00	142,00	-162,00	2.171,00	1,00	NCV	2.171,00	20,00	43,42	22,58	20,84	1,00	76,41
		Petroleum Coke	TJ		7.023,00	554,00		-340,00	6.809,00	1,00	NCV	6.809,00	27,50	187,25		187,25	1,00	686,57
		Refinery Feedstocks	TJ		10.290,00	439,00		-919,00	10.770,00	1,00	NCV	10.770,00	20,00	215,40		215,40	1,00	789,80
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												346.904,00		7.064,76	241,85	6.822,91		25.017,34
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	178.714,00	5.013,00	0,00	-18.848,00	192.549,00	1,00	NCV	192.549,00	25,80	4.967,76		4.967,76	1,00	18.215,14
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	29,00	7,00		-5,00	27,00	1,00	NCV	27,00	27,60	0,75		0,75	1,00	2,73
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.425,00	0,00		5,00	1.420,00	1,00	NCV	1.420,00	29,50	41,89		41,89	1,00	153,60
Solid Fuel Totals												193.996,00		5.010,40	0,00	5.010,40		18.371,46
Gaseous Fossil		Natural Gas (Dry)	TJ	294.061,00	0,00	107.498,00		-1.624,00	188.187,00	1,00	NCV	188.187,00	15,30	2.879,26	0,00	2.879,26	1,00	10.557,29
Total												**729.087,00**		**14.954,42**	**241,85**	**14.712,57**		**53.946,10**
Biomass total												69.007,00		2.044,18	0,00	2.044,18		7.495,34
		Solid Biomass	TJ	65.079,00	1.245,00	0,00		0,00	66.324,00	1,00	NCV	66.324,00	29,90	1.983,09		1.983,09	1,00	7.271,32
		Liquid Biomass	TJ	27,00	0,00	0,00		0,00	27,00	1,00	NCV	27,00	20,00	0,54		0,54	1,00	1,98
		Gas Biomass	TJ	2.656,00	0,00	0,00		0,00	2.656,00	1,00	NCV	2.656,00	22,80	60,56		60,56	1,00	222,04

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	346,90	25.017,34	331,62	24.762,07	4,61	1,03
Solid Fuels (excluding international bunkers)	194,00	18.371,46	197,99	18.808,62	-2,02	-2,32
Gaseous Fuels	188,19	10.557,29	187,96	10.694,85	0,12	-1,29
Other [3]	-12,56	559,30	0,50	596,08	-2.592,07	-6,17
Total [3]	**716,53**	**54.505,40**	**718,07**	**54.861,63**	**-0,21**	**-0,65**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.

CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.

CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.057,00	0,75	20,00	15,86
Lubricants	2.258,00	0,50	20,00	22,58
Bitumen	9.246,00	1,00	22,00	203,41
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
58,14	
82,79	
745,84	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,37	0,00
	7,12	0,47	0,00	3,37	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 *(kg/unit)* [2]	CH_4 *(kg/unit)* [2]	N_2O *(kg/unit)* [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,05**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg product	2.047.557	0,00	0,00			0,00	
vi. Other		Mg Crude	5.000.000	0,00	0,01			0,05	
1. B. 2. b. Natural Gas							**0,00**	**1,87**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m3	2.500.000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 gas	10.092	0,00	23,19			0,23	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**902,74**	**2,50**	**0,02**
i. Oil	*(e.g. PJ gas consumption)*	GJ	324.130	56,90	0,00	0,00	18,44		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	15.541.257	56,90	0,16	0,00	884,30	2,50	0,02
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.

[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.

[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.

[4] If using default emission factors these categories will include emissions from production other than venting and flaring.

[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.

[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**54.753,39**				**4.166,42**	**0,09**	**0,26**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	26.085,29	74,00	1,69	4,70	1.930,31	0,04	0,12
Residual Fuel Oil	28.668,10	78,00	1,76	4,90	2.236,11	0,05	0,14
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**31.812,00**				**2.290,47**	**0,04**	**0,08**
Jet Kerosene	31.802,79	72,00	1,14	2,52	2.289,80	0,04	0,08
Gasoline	9,21	73,00	21,93	1,95	0,67	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	9,41	90,59
Aviation	7,04	92,96

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.401,62**	**0,00**	**0,00**	**1.744,49**	**597,90**	**48,30**	**19,84**	**0,01**	**0,00**	**0,45**	**0,00**	**0,51**	**0,00**
A. Mineral Products	**1.401,62**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.294,83												
2. Lime Production	106,79												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)*	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,45**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,45			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
													0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,51**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00											0,51	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.744,49**	**597,90**	**48,30**	**19,84**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				1.350,75	411,63	48,30	19,84		0,00				
2. Foam Blowing				375,54	166,77		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				18,20	19,50		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	0,00	0,00	0,01	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.							0,00	0,01	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1999

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.401,62**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.427,82	0,53			1.294,83					
2. Lime Production	Production of Lime and Brigs	500,38	0,21			106,79					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		0,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

1999

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		4,53	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**3,77**	**0,00**	**0,00**	**39,10**	**0,00**	**259,11**	**38,20**	**0,00**	**37,83**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**2,83**	**0,00**	**0,00**	**0,00**	**0,00**		**2,74**
C. Metal Production															**0,00**	**0,00**							**0,70**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							0,70
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**3,77**	**0,00**	**0,00**	**39,10**	**0,00**	**259,11**	**38,20**	**0,00**	**37,83**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**2,83**	**0,00**	**0,00**	**0,00**	**0,00**		**2,04**
1. Refrigeration and Air Conditioning Equipment		3,77			39,10		119,88	0,63		37,83							2,83						
2. Foam Blowing							124,24	37,57															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							15,00																
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,48
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		1,55
																	0,00						1,55
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**2,45**	**0,00**	**0,00**	**109,48**	**0,00**	**336,85**	**5,35**	**0,00**	**143,77**	**0,00**	**0,00**	**0,00**	**597,90**	**0,00**	**0,00**	**19,84**	**0,00**	**0,00**	**0,00**	**0,00**	**19,84**	**65,39**
C. Metal Production															0,00	0,00						0,00	16,73
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	2,45	0,00	0,00	109,48	0,00	336,85	5,35	0,00	143,77	0,00	0,00	0,00	597,90	0,00	0,00	19,84	0,00	0,00	0,00	0,00	19,84	48,66
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	2,45	0,00	0,00	109,48	0,00	336,85	5,35	0,00	143,77	0,00	0,00	0,00	597,90	0,00	0,00	19,84	0,00	0,00	0,00	0,00	19,84	48,66
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal Production; Production of Halocarbons and SF_6
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				0,70	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	0,70	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES Denmark
Consumption of Halocarbons and SF_6 1999
(Sheet 1 of 2) 2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	204,00	533,29		2,00	1,00	0,00	4,08	4,79	0,00
HFC-404a	24,00	50,47		2,00	1,00	0,00	0,48	0,27	0,00
Commercial Refrigeration									
HFC-401a	15,00	42,99		1,50	10,00	0,00	0,23	3,53	0,00
HFC-402a	8,00	47,19		1,50	10,00	0,00	0,12	4,37	0,00
HFC-407c	40,00	65,64		1,50	10,00	0,00	0,60	2,92	0,00
HFC-507c	10,00	25,10		1,50	10,00	0,00	0,15	1,69	0,00
Other HFCs (~410a)	29,00	78,04		1,50	10,00	0,00	0,44	5,50	0,00
Transport Refrigeration									
HFC-402a	2,00	5,25	0,00	0,50	17,00	0,00	0,01	0,67	0,00
HFC-404a	34,00	53,03	0,00	4,50	30,00	5,50	1,53	8,84	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
HFC-134a	30,00	140,30		4,50	30,00	0,00	1,35	36,21	0,00
2 Foam Blowing									
Hard Foam									
HFC-152a (refrigerators)	0,00	2,99		10,00	4,50	0,00	0,00	0,14	0,00
HFC-152a (other use)	0,00	12,03		10,00	4,50	0,00	0,00	0,57	0,00
Soft Foam									
HFC-134a (foam plastics)	39,00	0,00	0,00	100,00	0,00	0,00	39,00	0,00	0,00
HFC-134a (joint filler)	10,00	0,00	0,00	100,00	0,00	0,00	10,00	0,00	0,00
HFC-152a (joint filler)	1,00	0,00	0,00	100,00	0,00	0,00	1,00	0,00	0,00
HFC-152a (foam plastics)	36,00	0,00	0,00	100,00	0,00	0,00	36,00	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.
[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

1999

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
HFC-134a (Aerosol spray)	14,00	15,00		0,00			0,00	8,10	
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	4,70	53,82	0,00	5,00	0,50	5,00	0,24	0,25	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	7,20	38,86	0,00	15,00	1,00	65,00	1,08	0,36	0,00
SF6 (laboratories)	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas. No registered amount used this year.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**113,24**	**0,00**	**38,54**
A. Paint Application	**73,05**		**23,44**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,20**
D. Other *(please specify)*	40,19	0,00	12,90
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	40,19		12,90

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**170,38**	**27,44**	**0,00**	**0,00**	**1,19**
A. Enteric Fermentation	**129,89**				
1. Cattle	112,71				
Dairy Cattle	66,58				
Non-Dairy Cattle	46,13				
2. Buffalo	NO				
3. Sheep	0,55				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,67				
7. Mules and Asses	NO				
8. Swine	13,96				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**40,48**	**1,47**			**0,00**
1. Cattle	15,95				
Dairy Cattle	13,96				
Non-Dairy Cattle	1,99				
2. Buffalo	NO				
3. Sheep	0,03				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,16				
7. Mules and Asses	NO				
8. Swine	23,68				
9. Poultry	0,66				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,21			NE
12. Solid Storage and Dry Lot		1,26			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**25,96**			**1,19**
1. Direct Soil Emissions	NE	16,08			1,19
2. Animal Production	NE	0,82			NE
3. Indirect Emissions	NE	8,89			NE
4. Other *(please specify)* [redacted]	0,00	0,17			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size[2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	640	264,7	6,00	104,00
Non-Dairy Cattle	1.247	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	69			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	149			18,00
7. Mules and Asses				0,00
8. Swine	9.305			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals[b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation[c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	640	100,0			550,0	2.115,0	0,2	21,80
Non-Dairy Cattle	1.247	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	69	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	149	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	9.305	100,0			76,0	110,0	0,5	2,54
9. Poultry	19.645	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

1999

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	640								Anaerobic lagoon	0,000
Dairy Cattle	1.247								Liquid system	0,000
Sheep	69								Solid storage and dry lot	0,000
Swine	9.305								Other	0,000
Poultry	19.645									
Other *(please specify)*										
Total per AWMS[2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

1999

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[(1)]

1999

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION		IMPLIED EMISSION FACTORS		EMISSIONS
	Description	Value	Unit		(Gg N_2O)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**16,08**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	256.900.000	(kg N2O-N/kg N)[(2)]	0,012	4,95
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	243.070.000	(kg N2O-N/kg N)[(2)]	0,009	3,42
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	40.200.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,79
Crop Residue	Dry production of other crops (kg dry biomass/yr)	345.100.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	6,78
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.400	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**27.930.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	**0,82**
Indirect Emissions					**8,89**
Atmospheric Deposition	(kg N/yr)	75.881.910	(kg N2O-N/kg N)[(2)]	0,010	1,19
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	196.000.000	(kg N2O-N/kg N)[(2)]	0,025	7,70
Other *(please specify)*					**0,17**
Sewage sludge used as fertilizer	(kg N/yr)	3.960.000	(kg N2O-N/kg N)[(2)]	0,013	0,08
Industrial waste used as fertilizer	(kg N/yr)	4.900.000	(kg N2O-N/kg N)[(2)]	0,013	0,10
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,10
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,37
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

1999

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:
According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.161,00**	**-3.161,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.161,00**	**-3.161,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.118,00	-3.118,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-43,00	-43,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-43,00	-43,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

1999

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

	Climate [a]	land-use/ management system [a]	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
Year			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**52,84**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**52,84**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	52,84		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	1.467,00				0,04	#VALUE!	52,84	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

(1) Actual emissions (after recovery).

(2) CH_4 recovered and flared or utilized.

(3) Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

(a) Specify whether total or urban population is used and the rationale for doing so.

(b) See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

(c) For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals		**57.279,23**	**-3.161,00**	**260,62**	**30,05**	**1.744,49**	**597,90**	**48,30**	**19,84**	**0,01**	**0,00**	**219,76**	**572,04**	**144,44**	**53,99**
1. Energy		**55.764,37**		**37,40**	**2,61**							**219,30**	**572,04**	**95,19**	**53,99**
A. Fuel Combustion	Reference Approach[2]	53.946,10													
	Sectoral Approach[2]	54.861,63		29,61	2,60							214,53	544,78	87,33	52,57
1. Energy Industries		28.249,93		17,36	0,95							60,38	11,94	5,82	36,37
2. Manufacturing Industries and Construction		6.128,61		1,64	0,19							27,93	18,16	4,65	8,75
3. Transport		12.182,19		3,99	1,16							85,77	354,60	58,16	2,84
4. Other Sectors		8.118,55		6,61	0,29							39,45	159,38	18,57	4,59
5. Other		182,35		0,01	0,01							1,00	0,69	0,13	0,02
B. Fugitive Emissions from Fuels		902,74		7,79	0,02							4,78	27,26	7,86	1,41
1. Solid Fuels		0,00		3,37	0,00							0,00	24,16	0,00	0,00
2. Oil and Natural Gas		902,74		4,42	0,02							4,78	3,10	7,86	1,41
2. Industrial Processes		**1.401,62**		**0,00**	**0,00**	**1.744,49**	**597,90**	**48,30**	**19,84**	**0,01**	**0,00**	**0,45**	**0,00**	**0,51**	**0,00**
A. Mineral Products		1.401,62		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,45	0,00	0,00	0,00
C. Metal Production		0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]		0,00										0,00	0,00	0,51	0,00
E. Production of Halocarbons and SF_6							0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6						1.744,49	597,90	48,30	19,84	0,01	0,00				
G. Other		0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**113,24**			**0,00**									**38,54**	
4. Agriculture	**0,00**	**0,00**	**170,38**	**27,44**							0,00	0,00	1,19	0,00
A. Enteric Fermentation			129,89											
B. Manure Management			40,48	1,47									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	25,96									1,19	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.161,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,01**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.161,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00	9,01	
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**52,84**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		52,84									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**6.456,90**		**0,13**	**0,34**							**123,36**	**11,40**	**3,41**	**60,65**
Aviation	2.290,47		0,04	0,08							9,23	1,70	0,35	0,07
Marine	4.166,42		0,09	0,26							114,13	9,71	3,05	60,58
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**6.351,58**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**57.279,23**	**-3.161,00**	**260,62**	**30,05**	**1.744,49**	**597,90**	**48,30**	**19,84**	**0,01**	**0,00**	**219,76**	**572,04**	**144,44**	**53,99**
1. Energy		**55.764,37**		**37,40**	**2,61**							**219,30**	**572,04**	**95,19**	**53,99**
A. Fuel Combustion	Reference Approach[2]	53.946,10													
	Sectoral Approach[2]	54.861,63		29,61	2,60							214,53	544,78	87,33	52,57
B. Fugitive Emissions from Fuels		902,74		7,79	0,02							4,78	27,26	7,86	1,41
2. Industrial Processes		**1.401,62**		**0,00**	**0,00**	**1.744,49**	**597,90**	**48,30**	**19,84**	**0,01**	**0,00**	**0,45**	**0,00**	**0,51**	**0,00**
3. Solvent and Other Product Use		**113,24**			**0,00**							**0,00**	**0,00**	**38,54**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**170,38**	**27,44**							**0,00**	**0,00**	**1,19**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.161,00**	**0,00**	**0,00**							**0,00**	**0,00**	**9,01**	**0,00**
6. Waste		**0,00**		**52,84**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.456,90**		**0,13**	**0,34**							**123,36**	**11,40**	**3,41**	**60,65**
Aviation		2.290,47		0,04	0,08							9,23	1,70	0,35	0,07
Marine		4.166,42		0,09	0,26							114,13	9,71	3,05	60,58
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**6.351,58**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**54.118,23**	**5.473,04**	**9.314,38**	**597,90**	**19,84**	**65,39**	**69.588,76**
1. Energy	**55.764,37**	**785,42**	**809,47**				**57.359,26**
A. Fuel Combustion (Sectoral Approach)	54.861,63	621,88	804,56				56.288,07
1. Energy Industries	28.249,93	364,52	293,09				28.907,54
2. Manufacturing Industries and Construction	6.128,61	34,46	57,82				6.220,90
3. Transport	12.182,19	83,76	359,74				12.625,69
4. Other Sectors	8.118,55	138,91	91,42				8.348,87
5. Other	182,35	0,22	2,49				185,06
B. Fugitive Emissions from Fuels	902,74	163,53	4,92				1.071,19
1. Solid Fuels	0,00	70,78	0,00				70,78
2. Oil and Natural Gas	902,74	92,75	4,92				1.000,41
2. Industrial Processes	**1.401,62**	**0,00**	**0,00**	**597,90**	**19,84**	**65,39**	**2.084,74**
A. Mineral Products	1.401,62	0,00	0,00				1.401,62
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	16,73	16,73
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				597,90	19,84	48,66	666,39
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**113,24**		**0,00**				**113,24**
4. Agriculture	**0,00**	**3.577,92**	**8.504,90**				**12.082,83**
A. Enteric Fermentation		2.727,79					2.727,79
B. Manure Management		850,13	455,91				1.306,05
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	8.048,99				8.048,99
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.161,00**	**0,00**	**0,00**				**-3.161,00**
6. Waste	**0,00**	**1.109,70**	**0,00**				1.109,70
A. Solid Waste Disposal on Land	0,00	1.109,70					1.109,70
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.456,90**	**2,75**	**106,37**				**6.566,02**
Aviation	2.290,47	0,77	24,82				2.316,06
Marine	4.166,42	1,99	81,55				4.249,96
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**6.351,58**						**6.351,58**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.161,00	-3.161,00			-3.161,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.161,00	-3.161,00	0,00	0,00	-3.161,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	72.749,76
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	69.588,76

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)	Method applied (1)	Emission factor (2)
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals		**56.268,84**	**54.118,23**	**-3,82**	**5.653,46**	**5.473,04**	**-3,19**	**9.316,71**	**9.314,38**	**-0,03**
1. Energy		**55.729,97**	**55.764,37**	**0,06**	**1.009,16**	**785,42**	**-22,17**	**811,81**	**809,47**	**-0,29**
1.A.	Fuel Combustion Activities	54.827,23	54.861,63	0,06	674,13	621,88	-7,75	806,89	804,56	-0,29
1.A.1.	Energy Industries	28.236,66	28.249,93	0,05	371,32	364,52	-1,83	287,75	293,09	1,86
1.A.2.	Manufacturing Industries and Construction	6.128,61	6.128,61	0,00	31,81	34,46	8,35	57,81	57,82	0,03
1.A.3.	Transport	12.184,17	12.182,19	-0,02	74,34	83,76	12,67	371,95	359,74	-3,28
1.A.4.	Other Sectors	8.095,44	8.118,55	0,29	196,45	138,91	-29,29	86,76	91,42	5,36
1.A.5.	Other	182,35	182,35	0,00	0,21	0,22	3,96	2,62	2,49	-5,16
1.B.	Fugitive Emissions from Fuels	902,74	902,74	0,00	335,03	163,53	-51,19	4,92	4,92	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	69,72	70,78	1,53	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	902,74	902,74	0,00	265,31	92,75	-65,04	4,92	4,92	0,00
2. Industrial Processes		**1.401,62**	**1.401,62**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.401,62	1.401,62	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**113,24**	**113,24**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.534,60**	**3.577,92**	**1,23**	**8.504,90**	**8.504,90**	**0,00**
4.A.	Enteric Fermentation				2.686,96	2.727,79	1,52			
4.B.	Manure Management				847,64	850,13	0,29	455,91	455,91	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils [2]			0,00	0,00	0,00	0,00	8.048,99	8.048,99	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-976,00**	**-3.161,00**	**223,87**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-976,00	-3.161,00	223,87						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2			CH_4			N_2O		
	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste	**0,00**	**0,00**	**0,00**	**1.109,70**	**1.109,70**	**0,00**	**0,00**	**0,00**	**0,00**
6.A. Solid Waste Disposal on Land	0,00	0,00	0,00	1.109,70	1.109,70	0,00			
6.B. Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C. Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00			0,00			0,00
Memo Items:									
International Bunkers	**6.474,60**	**6.456,90**	**-0,27**	**2,85**	**2,75**	**-3,49**	**106,69**	**106,37**	**-0,30**
Multilateral Operations	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**6.351,44**	**6.351,58**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFCs			PFCs			SF_6		
	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions	**615,82**	**597,90**	**-2,91**	**19,83**	**19,84**	**0,04**	**65,39**	**65,39**	**0,00**
2.C.3. Aluminium Production				0,00	0,00	0,00	16,73	16,73	0,00
2.E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F. Consumption of Halocarbons and SF_6	615,82	597,90	-2,91	19,83	19,84	0,04	48,66	48,66	0,00
Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6	**1.633,65**	**1.744,49**		**48,18**	**48,30**		**284,41**	**284,41**	

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]	71.940,04	69.588,76	-3,27
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]	72.916,04	72.749,76	-0,23

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
1999
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.f	Other	CH4		CH4 emission factor of a LPS using petroleum coke have been changed from 1,5 g/GJ to 15 g/GJ (like 1998 and 2000)		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
1999
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
1999
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 1999

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☑
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☑
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☑			
	Completeness table:			☐			
	Trend table:			☐			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	-0,65	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☑			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☑		☑			
	Production of Halocarbons/SF_6:	☑		☑		☑	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

2000

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**51.199,07**	**36,32**	**2,57**	**206,08**	**579,48**	**88,72**	**27,73**
A. Fuel Combustion Activities (Sectoral Approach)	**50.605,87**	**29,76**	**2,56**	**202,99**	**555,69**	**81,38**	**26,70**
1. Energy Industries	**25.120,95**	**16,85**	**0,85**	**48,36**	**11,10**	**5,59**	**12,76**
a. Public Electricity and Heat Production	22.709,56	16,68	0,79	44,50	10,14	5,53	12,14
b. Petroleum Refining	972,24	0,00	0,03	1,31	0,25	0,00	0,61
c. Manufacture of Solid Fuels and Other Energy Industries	1.439,15	0,17	0,03	2,55	0,71	0,05	0,01
2. Manufacturing Industries and Construction	**5.823,11**	**1,82**	**0,18**	**27,97**	**19,32**	**4,90**	**7,39**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	5.823,11	1,82	0,18	27,97	19,32	4,90	7,39
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				27,97	19,32	4,90	7,39
3. Transport	**12.046,29**	**3,39**	**1,22**	**84,45**	**324,14**	**48,04**	**2,00**
a. Civil Aviation	155,39	0,00	0,01	0,73	0,89	0,15	0,01
b. Road Transportation	11.229,79	3,30	1,18	74,50	311,97	41,62	0,35
c. Railways	228,39	0,01	0,01	2,13	0,35	0,14	0,01
d. Navigation	432,72	0,07	0,02	7,09	10,93	6,13	1,64
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**7.504,99**	**7,70**	**0,30**	**41,70**	**200,73**	**22,78**	**4,54**
a. Commercial/Institutional	806,79	0,94	0,02	1,09	0,79	0,54	0,33
b. Residential	4.086,25	4,29	0,16	5,11	173,79	14,10	1,55
c. Agriculture/Forestry/Fisheries	2.611,94	2,47	0,12	35,50	26,15	8,14	2,66
5. Other *(please specify)* [1]	**110,53**	**0,01**	**0,00**	**0,51**	**0,40**	**0,06**	**0,01**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	110,53	0,01	0,00	0,51	0,40	0,06	0,01
Emissions from military combustion of fuels	110,53	0,01	0,00	0,51	0,40	0,06	0,01
B. Fugitive Emissions from Fuels	**593,20**	**6,57**	**0,01**	**3,09**	**23,79**	**7,34**	**1,04**
1. Solid Fuels	**0,00**	**3,04**	**0,00**	**0,00**	**21,78**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,04	0,00	0,00	21,78	0,00	0,00
Storage of solid fluid					21,78		
2. Oil and Natural Gas	**593,20**	**3,53**	**0,01**	**3,09**	**2,01**	**7,34**	**1,04**
a. Oil	0,00	0,05				6,05	0,98
b. Natural Gas	0,00	1,85				0,42	0,00
c. Venting and Flaring	593,20	1,63	0,01	3,09	2,01	0,88	0,05
Venting	0,00	0,00					0,05
Flaring	593,20	1,63	0,01	3,09	2,01	0,88	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**6.629,46**	**0,14**	**0,35**	**126,66**	**11,72**	**3,50**	**65,28**
Aviation	2.348,44	0,04	0,08	9,47	1,75	0,37	0,08
Marine	4.281,01	0,10	0,27	117,19	9,97	3,13	65,20
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**7.000,55**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**739.474,60**	NCV				**50.605,87**	**29,76**	**2,56**
Liquid Fuels	318.843,62	NCV	74,43	12,97	5,02	23.729,98	4,13	1,60
Solid Fuels	165.920,86	NCV	95,00	2,54	3,00	15.762,48	0,42	0,50
Gaseous Fuels	183.757,32	NCV	57,10	107,11	1,00	10.492,54	19,68	0,18
Biomass	70.418,38	NCV	99,41	77,55	3,92 [3]	7.000,55	5,46	0,28
Other Fuels	534,42	NCV	1.161,76	107,93	0,53	620,86	0,06	0,00
1.A.1. Energy Industries	**355.905,45**	NCV				**25.120,95**	**16,85**	**0,85**
Liquid Fuels	57.391,74	NCV	73,40	2,14	2,00	4.212,74	0,12	0,11
Solid Fuels	153.175,67	NCV	95,00	1,50	3,00	14.551,69	0,23	0,46
Gaseous Fuels	101.332,44	NCV	57,10	150,32	1,00	5.786,08	15,23	0,10
Biomass	44.005,60	NCV	98,43	28,77	3,92 [3]	4.331,33	1,27	0,17
Other Fuels	0,00	NCV	0,00	0,00	0,00	570,44	0,00	0,00
a. Public Electricity and Heat Production	314.126,18	NCV				22.709,56	16,68	0,79
Liquid Fuels	40.849,02	NCV	79,33	2,95	1,99	3.240,50	0,12	0,08
Solid Fuels	153.175,67	NCV	95,00	1,50	3,00	14.551,69	0,23	0,46
Gaseous Fuels	76.128,41	NCV	57,10	198,00	1,00	4.346,93	15,07	0,08
Biomass	43.973,09	NCV	98,44	28,48	3,92 [3]	4.328,62	1,25	0,17
Other Fuels	0,00	NCV	0,00	0,00	0,00	570,44	0,00	0,00
b. Petroleum Refining	16.542,72	NCV				972,24	0,00	0,03
Liquid Fuels	16.542,72	NCV	58,77	0,14	2,00	972,24	0,00	0,03
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	25.236,54	NCV				1.439,15	0,17	0,03
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	25.204,03	NCV	57,10	6,29	1,00	1.439,15	0,16	0,03
Biomass	32,51	NCV	83,60	434,00	2,00 [3]	2,72	0,01	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**88.930,65**	NCV					**5.823,11**	**1,82**	**0,18**
Liquid Fuels	30.942,05	NCV	78,51	11,05	2,66		2.429,41	0,34	0,08
Solid Fuels	11.620,78	NCV	95,00	15,00	3,00		1.103,97	0,17	0,03
Gaseous Fuels	39.916,91	NCV	57,10	27,81	1,00		2.279,26	1,11	0,04
Biomass	6.450,91	NCV	101,44	29,59	3,98	[3]	654,38	0,19	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		10,47	0,00	0,00
a. Iron and Steel	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
c. Chemicals	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00				
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00				
Biomass	IE/NO	NCV	0,00	0,00	0,00	[3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00				
f. Other *(please specify)*	88.930,65	NCV					5.823,11	1,82	0,18
Liquid Fuels	30.942,05	NCV	78,51	11,05	2,66		2.429,41	0,34	0,08
Solid Fuels	11.620,78	NCV	95,00	15,00	3,00		1.103,97	0,17	0,03
Gaseous Fuels	39.916,91	NCV	57,10	27,81	1,00		2.279,26	1,11	0,04
Biomass	6.450,91	NCV	101,44	29,59	3,98	[3]	654,38	0,19	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00		10,47	0,00	0,00

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**163.901,41**	NCV					**12.046,29**	**3,39**	**1,22**
Gasoline	85.844,30	NCV	72,98	34,61	9,89		6.264,58	2,97	0,85
Diesel	77.522,70	NCV	74,08	4,61	4,83		5.742,71	0,36	0,37
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	534,42	NCV	72,98	107,93	0,53		39,00	0,06	0,00
a. Civil Aviation	2.156,77	NCV					155,39	0,00	0,01
Aviation Gasoline	101,40	NCV	73,00	21,90	2,00		7,40	0,00	0,00
Jet Kerosene	2.055,37	NCV	72,00	1,30	3,63		147,99	0,00	0,01
b. Road Transportation	152.884,96	NCV					11.229,79	3,30	1,18
Gasoline	83.687,53	NCV	73,00	35,44	10,05		6.109,19	2,97	0,84
Diesel Oil	69.196,38	NCV	74,00	4,81	4,96		5.120,53	0,33	0,34
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	1,05	NCV					0,07	0,00	0,00
	1,05	NCV	65,00	23,71	5,69		0,07	0,00	0,00
c. Railways	3.086,45	NCV					228,39	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	3.086,45	NCV	74,00	4,84	2,06		228,39	0,01	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	5.773,23	NCV					432,72	0,07	0,02
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	1.508,81	NCV	78,00	1,76	4,90		117,69	0,00	0,01
Gas/Diesel Oil	3.731,06	NCV	74,00	1,95	4,54		276,10	0,01	0,02
Other Fuels *(please specify)*	533,36	NCV					38,94	0,06	0,00
	533,36	NCV	73,00	108,10	0,52		38,94	0,06	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**130.737,10**	NCV					**7.504,99**	**7,70**	**0,30**
Liquid Fuels	67.142,84	NCV	74,02	5,01	2,65		4.970,02	0,34	0,18
Solid Fuels	1.124,41	NCV	95,00	15,00	3,00		106,82	0,02	0,00
Gaseous Fuels	42.507,97	NCV	57,10	78,58	1,00		2.427,21	3,34	0,04
Biomass	19.961,88	NCV	100,93	200,57	3,89 [3]		2.014,84	4,00	0,08
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,95	0,00	0,00
a. Commercial/Institutional	14.098,58	NCV					806,79	0,94	0,02
Liquid Fuels	5.569,27	NCV	74,07	1,67	2,00		412,49	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	6.888,81	NCV	57,10	85,71	1,00		393,35	0,59	0,01
Biomass	1.640,49	NCV	90,49	205,21	2,76 [3]		148,44	0,34	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00		0,95	0,00	0,00
b. Residential	77.463,47	NCV					4.086,25	4,29	0,16
Liquid Fuels	32.812,87	NCV	73,84	5,67	1,99		2.422,79	0,19	0,07
Solid Fuels	45,20	NCV	95,00	15,00	3,01		4,29	0,00	0,00
Gaseous Fuels	29.057,26	NCV	57,10	34,10	1,00		1.659,17	0,99	0,03
Biomass	15.548,13	NCV	102,00	200,00	4,00 [3]		1.585,91	3,11	0,06
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	39.175,06	NCV					2.611,94	2,47	0,12
Liquid Fuels	28.760,69	NCV	74,22	4,89	3,52		2.134,73	0,14	0,10
Solid Fuels	1.079,21	NCV	95,00	15,00	3,00		102,53	0,02	0,00
Gaseous Fuels	6.561,90	NCV	57,10	268,03	1,00		374,68	1,76	0,01
Biomass	2.773,26	NCV	101,14	200,99	3,91 [3]		280,49	0,56	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**110,53**	**0,01**	**0,00**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		110,53	0,01	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	765.127,00	159.349,00	575.965,00		2.254,00	346.257,00	1,00	NCV	346.257,00	20,00	6.925,14		6.925,14	1,00	25.392,18
		Orimulsion	TJ	0,00	33.543,00	0,00		-599,00	34.142,00	1,00	NCV	34.142,00	22,00	751,12		751,12	1,00	2.754,12
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		44.500,00	60.777,00	5,00	-2.641,00	-13.641,00	1,00	NCV	-13.641,00	18,90	-257,81		-257,81	1,00	-945,32
		Jet Kerosene	TJ		29.325,00	15.142,00	32.869,00	-334,00	-18.352,00	1,00	NCV	-18.352,00	19,50	-357,86		-357,86	1,00	-1.312,17
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		84.708,00	52.037,00	22.872,00	-2.900,00	12.699,00	1,00	NCV	12.699,00	20,20	256,52	0,00	256,52	1,00	940,57
		Residual Fuel Oil	TJ		30.446,00	58.590,00	33.165,00	-8.511,00	-52.798,00	1,00	NCV	-52.798,00	21,10	-1.114,04		-1.114,04	1,00	-4.084,81
		LPG	TJ		370,00	5.027,00		8,00	-4.665,00	1,00	NCV	-4.665,00	17,20	-80,24	0,00	-80,24	1,00	-294,21
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		1.153,00	207,00		123,00	823,00	1,00	NCV	823,00	20,00	16,46	16,05	0,41	1,00	1,50
		Bitumen	TJ		9.255,00	602,00		62,00	8.591,00	1,00	NCV	8.591,00	22,00	189,00	194,83	-5,83	1,00	-21,38
		Lubricants	TJ		2.815,00	508,00	20,00	-149,00	2.436,00	1,00	NCV	2.436,00	20,00	48,72	21,81	26,91	1,00	98,67
		Petroleum Coke	TJ		7.334,00	1.669,00		-1.178,00	6.843,00	1,00	NCV	6.843,00	27,50	188,18		188,18	1,00	690,00
		Refinery Feedstocks	TJ		12.308,00	767,00		617,00	10.924,00	1,00	NCV	10.924,00	20,00	218,48		218,48	1,00	801,09
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												333.259,00		6.783,67	232,69	6.550,98		24.020,27
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	160.081,00	3.043,00	0,00	-8.627,00	165.665,00	1,00	NCV	165.665,00	25,80	4.274,16		4.274,16	1,00	15.671,91
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	19,00	11,00		-2,00	10,00	1,00	NCV	10,00	27,60	0,28		0,28	1,00	1,01
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		1.384,00	0,00		197,00	1.187,00	1,00	NCV	1.187,00	29,50	35,02		35,02	1,00	128,39
Solid Fuel Totals												166.862,00		4.309,45	0,00	4.309,45		15.801,31
Gaseous Fossil		Natural Gas (Dry)	TJ	310.295,00	0,00	120.678,00		3.106,00	186.511,00	1,00	NCV	186.511,00	15,30	2.853,62	0,00	2.853,62	1,00	10.463,27
Total												**686.632,00**		**13.946,74**	**232,69**	**13.714,05**		**50.284,85**
Biomass total												70.571,00		2.088,91	0,00	2.088,91		7.659,35
		Solid Biomass	TJ	66.090,00	1.520,00	0,00		0,00	67.610,00	1,00	NCV	67.610,00	29,90	2.021,54		2.021,54	1,00	7.412,31
		Liquid Biomass	TJ	49,00	0,00	0,00		0,00	49,00	1,00	NCV	49,00	20,00	0,98		0,98	1,00	3,59
		Gas Biomass	TJ	2.912,00	0,00	0,00		0,00	2.912,00	1,00	NCV	2.912,00	22,80	66,39		66,39	1,00	243,44

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	333,26	24.020,27	318,84	23.729,98	4,52	1,22
Solid Fuels (excluding international bunkers)	166,86	15.801,31	165,92	15.762,48	0,57	0,25
Gaseous Fuels	186,51	10.463,27	183,76	10.492,54	1,50	-0,28
Other [3]	-12,00	581,86	0,53	620,86	-2.345,44	-6,28
Total [3]	**674,63**	**50.866,71**	**669,06**	**50.605,87**	**0,83**	**0,52**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.
CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	1.070,00	0,75	20,00	16,05
Lubricants	2.181,00	0,50	20,00	21,81
Bitumen	8.856,00	1,00	22,00	194,83
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
58,85	
79,97	
714,38	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,04	0,00
	6,42	0,47	0,00	3,04	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 (kg/unit) [2]	CH_4 (kg/unit) [2]	N_2O (kg/unit) [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,05**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg pro	2001019	0,00	0,00			0,00	
vi. Other		Mg Cru	5300000	0,00	0,01			0,05	
1. B. 2. b. Natural Gas							**0,00**	**1,85**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m	2500000	0,00	0,65			1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 ga	10373,55	0,35	21,11		0,00	0,22	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**593,20**	**1,63**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	336541	57,10	0,00	0,00	19,22		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	10052192	57,10	0,16	0,00	573,98	1,63	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.
[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.
[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.
[4] If using default emission factors these categories will include emissions from production other than venting and flaring.
[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.
[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**56.057,73**				**4.281,01**	**0,10**	**0,27**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	22.872,34	74,00	1,69	4,70	1.692,55	0,04	0,11
Residual Fuel Oil	33.185,39	78,00	1,76	4,90	2.588,46	0,06	0,16
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**32.617,16**				**2.348,44**	**0,04**	**0,08**
Jet Kerosene	32.608,46	72,00	1,17	2,52	2.347,81	0,04	0,08
Gasoline	8,71	73,00	21,94	1,95	0,64	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	9,34	90,66
Aviation	6,20	93,80

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.453,00**	**0,00**	**0,00**	**1.797,06**	**705,02**	**45,99**	**28,30**	**0,01**	**0,00**	**0,41**	**0,00**	**0,47**	**0,00**
A. Mineral Products	**1.453,00**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.348,16												
2. Lime Production	104,84												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)*	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,41**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,41			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
													0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,47**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00											0,47	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.797,06**	**705,02**	**45,99**	**28,30**	**0,01**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				1.449,88	524,82	44,10	26,28		0,00				
2. Foam Blowing				332,23	166,15		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				14,95	14,04		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0,00	0,00				
8. Other *(please specify)*				0,00	0,00	1,89	2,02	0,00	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.						1,89	2,02	0,00	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

2000

(Sheet 1 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.453,00**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.505,88	0,54			1.348,16					
2. Lime Production	Production of Lime and Brigs	504,08	0,21			104,84					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		433,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark

2000

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		4,53	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**5,75**	**0,00**	**0,00**	**52,07**	**0,00**	**278,45**	**16,76**	**0,00**	**50,30**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**4,04**	**0,00**	**0,00**	**0,00**	**0,00**		**2,48**
C. Metal Production															**0,00**	**0,00**							**0,89**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							0,89
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**5,75**	**0,00**	**0,00**	**52,07**	**0,00**	**278,45**	**16,76**	**0,00**	**50,30**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**4,04**	**0,00**	**0,00**	**0,00**	**0,00**		**1,59**
1. Refrigeration and Air Conditioning Equipment		5,75			52,07		141,57	0,71		50,30							3,75						
2. Foam Blowing							126,08	16,05															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							10,80																
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,47
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,29	0,00	0,00	0,00	0,00		1,12
																	0,29						1,12
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**3,73**	**0,00**	**0,00**	**145,81**	**0,00**	**361,99**	**2,35**	**0,00**	**191,14**	**0,00**	**0,00**	**0,00**	**705,02**	**0,00**	**0,00**	**28,30**	**0,00**	**0,00**	**0,00**	**0,00**	**28,30**	**59,25**
C. Metal Production															0,00	0,00						0,00	21,29
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	3,73	0,00	0,00	145,81	0,00	361,99	2,35	0,00	191,14	0,00	0,00	0,00	705,02	0,00	0,00	28,30	0,00	0,00	0,00	0,00	28,30	37,95
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	3,73	0,00	0,00	145,81	0,00	361,99	2,35	0,00	191,14	0,00	0,00	0,00	705,02	0,00	0,00	28,30	0,00	0,00	0,00	0,00	28,30	37,95
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES
Metal Production; Production of Halocarbons and SF_6
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				0,89	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries	SF_6 consumption		0,00	0,89	
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES Denmark
Consumption of Halocarbons and SF_6 2000
(Sheet 1 of 2) 2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	240,00	622,15		2,00	1,00	0,00	4,80	5,33	0,00
HFC-404a	9,00	58,78		2,00	1,00	0,00	0,18	0,51	0,00
Commercial Refrigeration									
HFC-401a	10,00	44,24		1,50	10,00	0,00	0,15	4,30	0,00
HFC-402a	4,00	46,41		1,50	10,00	0,00	0,06	4,72	0,00
HFC-407c	44,70	103,11		1,50	10,00	0,00	0,67	6,56	0,00
HFC-507c	23,70	45,93		1,50	10,00	0,00	0,36	2,51	0,00
Other HFCs (~410a)	24,00	93,87		1,50	10,00	0,00	0,36	7,80	0,00
Transport Refrigeration									
HFC-402a	0,00	4,30	0,00	0,50	17,00	0,00	0,00	0,89	0,00
HFC-404a	18,00	54,16		4,50	30,00	5,50	0,81	15,91	0,16
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
HFC-134a	24,00	149,30		4,50	30,00	0,00	1,08	42,09	0,00
2 Foam Blowing									
Hard Foam									
HFC-152a (refrigerators)	0,00	2,86		10,00	4,50	0,00	0,00	0,13	0,00
HFC-152a (other use)	1,00	12,39		10,00	4,50	0,00	0,10	0,54	0,00
Soft Foam									
HFC-134a (foam plastics)	33,90	0,00	0,00	100,00	0,00	0,00	33,90	0,00	0,00
HFC-134a (joint filler)	10,00	0,00	0,00	100,00	0,00	0,00	10,00	0,00	0,00
HFC-152a (joint filler)	1,00	0,00	0,00	100,00	0,00	0,00	1,00	0,00	0,00
HFC-152a (foam plastics)	14,40	0,00	0,00	100,00	0,00	0,00	14,40	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.
[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

2000

(Sheet 2 of 2)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	4,00	57,35	0,00	5,00	0,50	5,00	0,20	0,27	0,00
8 Other *(please specify)*									
SF6 (sealed glazing units)	4,13	40,23	0,00	15,00	1,00	65,00	0,62	0,39	0,00
SF6 (laboratory)	0,00	0,00	0,00	100,00	0,00	0,00	0,00	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the some activities leading to emissions of HFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratory): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas. No registered amount used this year.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**111,75**	**0,00**	**38,01**
A. Paint Application	**72,37**		**23,22**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,15**
D. Other *(please specify)*	39,38	0,00	12,64
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	39,38		12,64

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**170,25**	**26,75**	**0,00**	**0,00**	**1,19**
A. Enteric Fermentation	**129,27**				
1. Cattle	111,69				
Dairy Cattle	66,09				
Non-Dairy Cattle	45,60				
2. Buffalo	NO				
3. Sheep	0,54				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,70				
7. Mules and Asses	NO				
8. Swine	14,33				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**40,99**	**1,42**			**0,00**
1. Cattle	15,83				
Dairy Cattle	13,85				
Non-Dairy Cattle	1,97				
2. Buffalo	NO				
3. Sheep	0,03				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,17				
7. Mules and Asses	NO				
8. Swine	24,29				
9. Poultry	0,68				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,20			NE
12. Solid Storage and Dry Lot		1,22			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**25,33**			**1,19**
1. Direct Soil Emissions	NE	15,99			1,19
2. Animal Production	NE	0,85			NE
3. Indirect Emissions	NE	8,34			NE
4. Other *(please specify)* [redacted]	0,00	0,16			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size[2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	636	264,7	6,00	104,00
Non-Dairy Cattle	1.232	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	68			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	150			18,00
7. Mules and Asses				0,00
8. Swine	9.553			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals[b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation[c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS CH_4
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	636	100,0			550,0	2.115,0	0,2	21,80
Non-Dairy Cattle	1.232	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	68	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	150	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	9.553	100,0			76,0	110,0	0,5	2,54
9. Poultry	20.576	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

2000

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system ($kg\ N_2O$-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	636								Anaerobic lagoon	0,000
Dairy Cattle	1.232								Liquid system	0,000
Sheep	68								Solid storage and dry lot	0,000
Swine	9.553								Other	0,000
Poultry	20.576									
Other *(please specify)*										
Total per AWMS [2]			**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

This table will be filled out when revisions of the methodology for GHG emissions from the Agricultural Sector are completed (refer NIR 2003).

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

2000

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[(1)]

2000

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION		IMPLIED EMISSION FACTORS		EMISSIONS
	Description	Value	Unit		(Gg N_2O)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**15,99**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	245.700.000	(kg N2O-N/kg N)[(2)]	0,012	4,73
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	234.550.000	(kg N2O-N/kg N)[(2)]	0,009	3,30
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	39.700.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,78
Crop Residue	Dry production of other crops (kg dry biomass/yr)	358.000.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	7,03
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.400	(kg N2O-N/ha)[(2)]	5,000	0,14
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**28.950.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	**0,85**
Indirect Emissions					**8,34**
Atmospheric Deposition	Volatized N (NH_3 and NOx) from fertilizers and animal wastes (kg N/yr)	73.318.150	(kg N2O-N/kg N)[(2)]	0,010	1,15
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	183.000.000	(kg N2O-N/kg N)[(2)]	0,025	7,19
Other *(please specify)*					**0,16**
Industrial waste used as fertilizer	(kg N/yr)	3.700.000	(kg N2O-N/kg N)[(2)]	0,013	0,07
Sewage sludge used as fertilizer	(kg N/yr)	4.200.000	(kg N2O-N/kg N)[(2)]	0,013	0,08
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,11
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,36
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

2000

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:

According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.517,00**	**-3.517,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.517,00**	**-3.517,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.458,00	-3.458,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-59,00	-59,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-59,00	-59,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).

[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.

[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations				0,00	
					0,00	
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
					0,00	
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				0,00
Gg CO_2				0,00

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest		0,00	
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			0,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			0,00

Net annual carbon uptake (+) or release (-) (Gg C)	0,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	0,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
For information on carbon sequestration in forests planted before 1990 and on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

2000

(Sheet 1 of 1)

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

Year	Climate [a]	land-use/ management system [a]	Soil type: High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**57,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**57,00**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	57,00		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	1.482,00				0,04	#VALUE!	57,00	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

[1] Actual emissions (after recovery).

[2] CH_4 recovered and flared or utilized.

[3] Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.

[b] See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

[c] For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**52.763,82**	**-3.517,00**	**263,57**	**29,32**	**1.797,06**	**705,02**	**45,99**	**28,30**	**0,01**	**0,00**	**206,49**	**579,48**	**128,39**	**27,73**
1. Energy	**51.199,07**		**36,32**	**2,57**							**206,08**	**579,48**	**88,72**	**27,73**
A. Fuel Combustion — Reference Approach[2]	50.284,85													
A. Fuel Combustion — Sectoral Approach[2]	50.605,87		29,76	2,56							202,99	555,69	81,38	26,70
1. Energy Industries	25.120,95		16,85	0,85							48,36	11,10	5,59	12,76
2. Manufacturing Industries and Construction	5.823,11		1,82	0,18							27,97	19,32	4,90	7,39
3. Transport	12.046,29		3,39	1,22							84,45	324,14	48,04	2,00
4. Other Sectors	7.504,99		7,70	0,30							41,70	200,73	22,78	4,54
5. Other	110,53		0,01	0,00							0,51	0,40	0,06	0,01
B. Fugitive Emissions from Fuels	593,20		6,57	0,01							3,09	23,79	7,34	1,04
1. Solid Fuels	0,00		3,04	0,00							0,00	21,78	0,00	0,00
2. Oil and Natural Gas	593,20		3,53	0,01							3,09	2,01	7,34	1,04
2. Industrial Processes	**1.453,00**		**0,00**	**0,00**	**1.797,06**	**705,02**	**45,99**	**28,30**	**0,01**	**0,00**	**0,41**	**0,00**	**0,47**	**0,00**
A. Mineral Products	1.453,00		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,41	0,00	0,00	0,00
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,47	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					1.797,06	705,02	45,99	28,30	0,01	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**111,75**			**0,00**									**38,01**	
4. Agriculture	**0,00**	**0,00**	**170,25**	**26,75**							0,00	0,00	1,19	0,00
A. Enteric Fermentation			129,27											
B. Manure Management			40,99	1,42									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	25,33									1,19	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.517,00**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.517,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00		
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**57,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		57,00									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Memo Items: [7]														
International Bunkers	**6.629,46**		**0,14**	**0,35**							**126,66**	**11,72**	**3,50**	**65,28**
Aviation	2.348,44		0,04	0,08							9,47	1,75	0,37	0,08
Marine	4.281,01		0,10	0,27							117,19	9,97	3,13	65,20
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**7.000,55**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**52.763,82**	**-3.517,00**	**263,57**	**29,32**	**1.797,06**	**705,02**	**45,99**	**28,30**	**0,01**	**0,00**	**206,49**	**579,48**	**128,39**	**27,73**
1. Energy		**51.199,07**		**36,32**	**2,57**							**206,08**	**579,48**	**88,72**	**27,73**
A. Fuel Combustion	Reference Approach[2]	50.284,85													
	Sectoral Approach[2]	50.605,87		29,76	2,56							202,99	555,69	81,38	26,70
B. Fugitive Emissions from Fuels		593,20		6,57	0,01							3,09	23,79	7,34	1,04
2. Industrial Processes		**1.453,00**		**0,00**	**0,00**	**1.797,06**	**705,02**	**45,99**	**28,30**	**0,01**	**0,00**	**0,41**	**0,00**	**0,47**	**0,00**
3. Solvent and Other Product Use		**111,75**			**0,00**							**0,00**	**0,00**	**38,01**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**170,25**	**26,75**							**0,00**	**0,00**	**1,19**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.517,00**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
6. Waste		**0,00**		**57,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**6.629,46**		**0,14**	**0,35**							**126,66**	**11,72**	**3,50**	**65,28**
Aviation		2.348,44		0,04	0,08							9,47	1,75	0,37	0,08
Marine		4.281,01		0,10	0,27							117,19	9,97	3,13	65,20
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**7.000,55**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**49.246,82**	**5.535,07**	**9.089,58**	**705,02**	**28,30**	**59,25**	**64.664,04**
1. Energy	**51.199,07**	**762,81**	**796,60**				**52.758,47**
A. Fuel Combustion (Sectoral Approach)	50.605,87	624,88	793,38				52.024,13
1. Energy Industries	25.120,95	353,87	262,85				25.737,67
2. Manufacturing Industries and Construction	5.823,11	38,16	56,61				5.917,88
3. Transport	12.046,29	71,11	379,22				12.496,62
4. Other Sectors	7.504,99	161,63	93,37				7.759,99
5. Other	110,53	0,11	1,34				111,98
B. Fugitive Emissions from Fuels	593,20	137,92	3,22				734,34
1. Solid Fuels	0,00	63,80	0,00				63,80
2. Oil and Natural Gas	593,20	74,12	3,22				670,54
2. Industrial Processes	**1.453,00**	**0,00**	**0,00**	**705,02**	**28,30**	**59,25**	**2.245,57**
A. Mineral Products	1.453,00	0,00	0,00				1.453,00
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	21,29	21,29
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				705,02	28,30	37,95	771,27
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**111,75**		**0,00**				**111,75**
4. Agriculture	**0,00**	**3.575,26**	**8.292,98**				**11.868,25**
A. Enteric Fermentation		2.714,57					2.714,57
B. Manure Management		860,70	439,93				1.300,63
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	7.853,05				7.853,05
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.517,00**	**0,00**	**0,00**				**-3.517,00**
6. Waste	**0,00**	**1.197,00**	**0,00**				1.197,00
A. Solid Waste Disposal on Land	0,00	1.197,00					1.197,00
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**6.629,46**	**2,84**	**109,17**				**6.741,47**
Aviation	2.348,44	0,80	25,44				2.374,69
Marine	4.281,01	2,04	83,73				4.366,79
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**7.000,55**						**7.000,55**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.517,00	-3.517,00			-3.517,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.517,00	-3.517,00	0,00	0,00	-3.517,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	68.181,04
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	64.664,04

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 1 of 2)

Denmark

2000

2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2			CH4			N2O		
		Previous submission	Latest submission	Difference(1)	Previous submission	Latest submission	Difference(1)	Previous submission	Latest submission	Difference(1)
		CO2 equivalent (Gg)		(%)	CO2 equivalent (Gg)		(%)	CO2 equivalent (Gg)		(%)
Total National Emissions and Removals		**51.856,77**	**49.246,82**	**-5,03**	**5.752,86**	**5.535,07**	**-3,79**	**9.083,09**	**9.089,58**	**0,07**
1. Energy		**51.287,02**	**51.199,07**	**-0,17**	**1.024,82**	**762,81**	**-25,57**	**790,10**	**796,60**	**0,82**
1.A.	Fuel Combustion Activities	50.693,82	50.605,87	-0,17	706,35	624,88	-11,53	786,88	793,38	0,83
1.A.1.	Energy Industries	25.250,16	25.120,95	-0,51	354,22	353,87	-0,10	258,34	262,85	1,75
1.A.2.	Manufacturing Industries and Construction	5.823,11	5.823,11	0,00	36,24	38,16	5,29	56,59	56,61	0,04
1.A.3.	Transport	12.028,14	12.046,29	0,15	71,34	71,11	-0,32	383,95	379,22	-1,23
1.A.4.	Other Sectors	7.481,88	7.504,99	0,31	244,45	161,63	-33,88	86,62	93,37	7,79
1.A.5.	Other	110,53	110,53	0,00	0,11	0,11	2,66	1,39	1,34	-3,57
1.B.	Fugitive Emissions from Fuels	593,20	593,20	0,00	318,48	137,92	-56,69	3,22	3,22	0,00
1.B.1.	Solid fuel	0,00	0,00	0,00	69,72	63,80	-8,49	0,00	0,00	0,00
1.B.2.	Oil and Natural Gas	593,20	593,20	0,00	248,76	74,12	-70,20	3,22	3,22	0,00
2. Industrial Processes		**1.453,00**	**1.453,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
2.A.	Mineral Products	1.453,00	1.453,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.B.	Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.C.	Metal Production	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.D.	Other Production	0,00	0,00	0,00						
2.G.	Other	0,00	0,00	0,00			0,00			0,00
3. Solvent and Other Product Use		**111,75**	**111,75**	**0,00**						**0,00**
4. Agriculture		**0,00**	**0,00**	**0,00**	**3.531,04**	**3.575,26**	**1,25**	**8.292,98**	**8.292,98**	**0,00**
4.A.	Enteric Fermentation				2.672,89	2.714,57	1,56			
4.B.	Manure Management				858,15	860,70	0,30	439,93	439,93	0,00
4.C.	Rice Cultivation				0,00	0,00	0,00			
4.D.	Agricultural Soils (2)			0,00	0,00	0,00	0,00	7.853,05	7.853,05	0,00
4.E.	Prescribed Burning of Savannas				0,00	0,00	0,00	0,00	0,00	0,00
4.F.	Field Burning of Agricultural Residues				0,00	0,00	0,00	0,00	0,00	0,00
4.G.	Other				0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry (net)		**-995,00**	**-3.517,00**	**253,47**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks	-995,00	-3.517,00	253,47						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

(1) Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

(2) See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 2003

(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2			CH4			N2O		
		Previous submission	Latest submission	Difference(1)	Previous submission	Latest submission	Difference(1)	Previous submission	Latest submission	Difference(1)
		CO2 equivalent (Gg)		(%)	CO2 equivalent (Gg)		(%)	CO2 equivalent (Gg)		(%)
6. Waste		**0,00**	**0,00**	**0,00**	**1.197,00**	**1.197,00**	**0,00**	**0,00**	**0,00**	**0,00**
6.A.	Solid Waste Disposal on Land	0,00	0,00	0,00	1.197,00	1.197,00	0,00			
6.B.	Wastewater Handling				0,00	0,00	0,00	0,00	0,00	0,00
6.C.	Waste Incineration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6.D.	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other (please specify)		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers		**6.647,43**	**6.629,46**	**-0,27**	**2,91**	**2,84**	**-2,45**	**109,57**	**109,17**	**-0,37**
Multilateral Operations		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
CO2 Emissions from Biomass		**7.000,55**	**7.000,55**	**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF6		
		Previous submission	Latest submission	Difference(1)	Previous submission	Latest submission	Difference(1)	Previous submission	Latest submission	Difference(1)
		CO2 equivalent (Gg)		(%)	CO2 equivalent (Gg)		(%)	CO2 equivalent (Gg)		(%)
Total Actual Emissions		**730,15**	**705,02**	**-3,44**	**28,30**	**28,30**	**0,01**	**59,25**	**59,25**	**0,00**
2.C.3.	Aluminium Production				0,00	0,00	0,00	21,29	21,29	0,00
2.E.	Production of Halocarbons and SF6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2.F.	Consumption of Halocarbons and SF6	730,15	705,02	-3,44	28,30	28,30	0,01	37,95	37,95	0,00
	Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential Emissions from Consumption of HFCs/PFCs and SF6		**1.707,71**	**1.797,06**		**48,18**	**45,99**		**194,28**	**194,28**	

	Previous submission	Latest submission	Difference(1)
	CO2 equivalent (Gg)		(%)
Total CO2 Equivalent Emissions with Land-Use Change and Forestry (3)	67.510,42	64.664,04	-4,22
Total CO2 Equivalent Emissions without Land-Use Change and Forestry (3)	68.505,42	68.181,04	-0,47

(3) The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
2000
2003, Apr 15

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	
1.A.1.	Energy Industries	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.1.	Energy Industries	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.2.	Manufacturing Industries and Construction	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.2.	Manufacturing Industries and Construction	CO2		Correction of CO2 emission factor unit of a few LPS		
1.A.3.	Transport	CO2, CH4, N2O	For road transport a new method has been used to carry out the fuel balance in the COPERT III annual estimates, see NIR 2003. A new model has been used to calculate aircraft emissions. Flights to Greenland and the Faroe Islands have been included under domestic aviation, see NIR 2003. For railways updated emission factors for gasoline have been derived from the new road traffic estimates. For military new emission factors for diesel and gasoline have been derived from the new road traffic estimates	yes	yes	
1.A.4.	Other Sectors	CH4, N2O		Emission factors of some fuels have been changed. Consistency of factors has been improved.		
1.A.4.	Other Sectors	CO2		Correction of CO2 emission factor unit of a few LPS		
1.B.1.c	Storage of solid fluid	CH4			Updated according to new energy statistics	
1.B.2.b.ii	Transmission	CH4		Changed according to new knowledge.	Changed according to new knowledge	
4.A.	Enteric Fermentation	CH4		no	yes	Horses on small farms and on riding schools have been included
4.B.	Manure Management	CH4		no	yes	Horses on small farms and on riding schools have been included
5.B.	Forest and Grassland Conversion	CO2	A new Danish Forestry census results in updates of biomass stocks and annual increment. Refer NIR 2003.			
2.F.	Consumption of Halocarbons and SF6	HFCs and PFCs	A revised methodology is introduced. Refer Nir 2003.			

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
2000
2003, Apr 15

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
2000
2003, Apr 15

Additional GHG emissions reported[4]						
GHG	Source category	Emissions (Gg)	Estimated GWP value (100-year horizon)	Emissions CO_2 equivalent (Gg)	Reference to the data source of GWP value	Explanation

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 2000

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	April 15, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☐
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☐
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☐			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	0,52	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☐			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☐		☐			
	Production of Halocarbons/SF_6:	☐		☐		☐	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Annual emission inventories

2001

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
Total Energy	**52.778,58**	**38,42**	**2,68**	**201,55**	**587,37**	**83,83**	**25,35**
A. Fuel Combustion Activities (Sectoral Approach)	**52.145,26**	**31,42**	**2,67**	**198,21**	**561,70**	**77,04**	**24,62**
1. Energy Industries	**26.374,98**	**18,29**	**0,90**	**48,91**	**12,10**	**6,07**	**11,14**
a. Public Electricity and Heat Production	24.022,00	18,12	0,85	44,79	11,14	6,02	10,46
b. Petroleum Refining	943,03	0,00	0,03	1,62	0,26	0,00	0,67
c. Manufacture of Solid Fuels and Other Energy Industries	1.409,95	0,17	0,02	2,50	0,69	0,05	0,01
2. Manufacturing Industries and Construction	**5.908,87**	**1,90**	**0,19**	**27,38**	**18,45**	**4,88**	**7,34**
a. Iron and Steel	0,00	0,00	0,00				
b. Non-Ferrous Metals	0,00	0,00	0,00				
c. Chemicals	0,00	0,00	0,00				
d. Pulp, Paper and Print	0,00	0,00	0,00				
e. Food Processing, Beverages and Tobacco	0,00	0,00	0,00				
f. Other *(please specify)*	5.908,87	1,90	0,19	27,38	18,45	4,88	7,34
Manufacturing Industries and Construction (a,b,c,d,e,f), incl. industry mobile sources and machinery				27,38	18,45	4,88	7,34
3. Transport	**12.076,89**	**3,35**	**1,27**	**80,03**	**314,67**	**43,34**	**1,74**
a. Civil Aviation	168,50	0,01	0,01	0,78	0,90	0,15	0,01
b. Road Transportation	11.272,98	3,26	1,23	70,35	302,54	37,03	0,35
c. Railways	211,65	0,01	0,01	1,98	0,32	0,13	0,01
d. Navigation	423,76	0,07	0,02	6,92	10,92	6,04	1,38
e. Other Transportation *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	NO_X	CO	NMVOC	SO_2
	(Gg)						
4. Other Sectors	**7.687,64**	**7,88**	**0,31**	**41,29**	**216,18**	**22,68**	**4,40**
a. Commercial/Institutional	820,59	1,00	0,02	1,11	0,82	0,58	0,25
b. Residential	4.284,84	4,60	0,17	5,40	190,60	14,99	1,57
c. Agriculture/Forestry/Fisheries	2.582,21	2,29	0,12	34,78	24,75	7,10	2,58
5. Other *(please specify)* [1]	**96,87**	**0,01**	**0,01**	**0,61**	**0,30**	**0,07**	**0,00**
a. Stationary	0,00	0,00	0,00	0,00	0,00	0,00	0,00
b. Mobile	96,87	0,01	0,01	0,61	0,30	0,07	0,00
Emissions from military combustion of fuels	96,87	0,01	0,01	0,61	0,30	0,07	0,00
B. Fugitive Emissions from Fuels	**633,32**	**7,00**	**0,01**	**3,33**	**25,68**	**6,79**	**0,72**
1. Solid Fuels	**0,00**	**3,28**	**0,00**	**0,00**	**23,51**	**0,00**	**0,00**
a. Coal Mining	0,00	0,00					
b. Solid Fuel Transformation	0,00	0,00					
c. Other *(please specify)*	0,00	3,28	0,00	0,00	23,51	0,00	0,00
Storage of solid fluid					23,51		
2. Oil and Natural Gas	**633,32**	**3,72**	**0,01**	**3,33**	**2,17**	**6,79**	**0,72**
a. Oil	0,00	0,04				5,41	0,67
b. Natural Gas	0,00	1,92				0,44	0,00
c. Venting and Flaring	633,32	1,76	0,01	3,33	2,17	0,95	0,05
Venting	0,00	0,00					0,05
Flaring	633,32	1,76	0,01	3,33	2,17	0,95	0,00
d. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items: [2]							
International Bunkers	**5.982,79**	**0,12**	**0,31**	**108,32**	**10,14**	**3,00**	**54,44**
Aviation	2.377,95	0,04	0,08	9,60	1,74	0,36	0,08
Marine	3.604,83	0,08	0,23	98,72	8,40	2,64	54,37
Multilateral Operations	0,00	0,00	0,00				
CO_2 Emissions from Biomass	**7.678,75**						

[1] Include military fuel use under this category.

[2] Please do not include in energy totals.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 1 of 4)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A. Fuel Combustion	**765.369,92**	NCV				**52.145,26**	**31,42**	**2,67**
Liquid Fuels	318.741,22	NCV	74,45	12,85	5,17	23.728,97	4,10	1,65
Solid Fuels	175.451,13	NCV	95,00	2,38	3,00	16.667,86	0,42	0,53
Gaseous Fuels	193.449,63	NCV	57,25	108,72	1,00	11.074,99	21,03	0,19
Biomass	77.191,91	NCV	99,48	75,35	3,92 [3]	7.678,75	5,82	0,30
Other Fuels	536,04	NCV	1.256,32	107,79	0,54	673,44	0,06	0,00
1.A.1. Energy Industries	**374.799,65**	NCV				**26.374,98**	**18,29**	**0,90**
Liquid Fuels	56.436,42	NCV	73,55	2,12	2,00	4.150,98	0,12	0,11
Solid Fuels	163.987,25	NCV	95,00	1,50	3,00	15.578,79	0,25	0,49
Gaseous Fuels	105.303,42	NCV	57,25	157,09	1,00	6.028,62	16,54	0,11
Biomass	49.072,55	NCV	98,59	28,15	3,93 [3]	4.837,83	1,38	0,19
Other Fuels	0,00	NCV	0,00	0,00	0,00	616,59	0,00	0,00
a. Public Electricity and Heat Production	334.239,03	NCV				24.022,00	18,12	0,85
Liquid Fuels	40.532,46	NCV	79,15	2,93	2,00	3.207,95	0,12	0,08
Solid Fuels	163.987,25	NCV	95,00	1,50	3,00	15.578,79	0,25	0,49
Gaseous Fuels	80.675,39	NCV	57,25	203,14	1,00	4.618,67	16,39	0,08
Biomass	49.043,92	NCV	98,59	27,91	3,93 [3]	4.835,44	1,37	0,19
Other Fuels	0,00	NCV	0,00	0,00	0,00	616,59	0,00	0,00
b. Petroleum Refining	15.903,97	NCV				943,03	0,00	0,03
Liquid Fuels	15.903,97	NCV	59,30	0,04	2,00	943,03	0,00	0,03
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00	0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00 [3]			
Other Fuels	0,00	NCV	0,00	0,00	0,00			
c. Manufacture of Solid Fuels and Other Energy Industries	24.656,65	NCV				1.409,95	0,17	0,02
Liquid Fuels	0,00	NCV	0,00	0,00	0,00			
Solid Fuels	0,00	NCV	0,00	0,00	0,00			
Gaseous Fuels	24.628,03	NCV	57,25	6,25	1,00	1.409,95	0,15	0,02
Biomass	28,63	NCV	83,60	434,00	1,99 [3]	2,39	0,01	0,00
Other Fuels	0,00	NCV	0,00	0,00	0,00			

[1] Activity data should be calculated using net calorific values (NCV) as specified by the IPCC Guidelines. If gross calorific values (GCV) were used, please indicate this by replacing "NCV" with "GCV" in this column.

[2] Accurate estimation of CH_4 and N_2O emissions depends on combustion conditions, technology, and emission control policy, as well as fuel characteristics. Therefore, caution should be used when comparing the implied emission factors.

[3] Carbon dioxide emissions from biomass are reported under Memo Items. The content of the cells is not included in the totals.

Note: For the coverage of fuel categories, please refer to the IPCC Guidelines (Volume 1. Reporting Instructions - Common Reporting Framework, section 1.2, p. 1.19). If some derived gases (e.g. gas work gas, coke oven gas, blast gas, oxygen steel furnace gas, etc.) are considered, Parties should provide information on the allocation of these derived gases under the above fuel categories (liquid, soild, gaseous, biomass, other fuels) in the documentation box at the end of sheet 4 of this table.

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 2 of 4)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]			EMISSIONS		
	Consumption		CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)	(Gg)	(Gg)	(Gg)
1.A.2 Manufacturing Industries and Construction	**91.507,44**	NCV				**5.908,87**	**1,90**	**0,19**
Liquid Fuels	31.360,82	NCV	78,75	11,27	2,68	2.469,81	0,35	0,08
Solid Fuels	10.181,17	NCV	95,00	15,00	3,00	967,21	0,15	0,03
Gaseous Fuels	42.909,54	NCV	57,25	27,45	1,00	2.456,57	1,18	0,04
Biomass	7.055,91	NCV	101,24	30,08	3,97 [3]	714,33	0,21	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00	15,27	0,00	0,00
a. Iron and Steel	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00			
Biomass	IE/NO	NCV	0,00	0,00	0,00 [3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00			
b. Non-Ferrous Metals	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00			
Biomass	IE/NO	NCV	0,00	0,00	0,00 [3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00			
c. Chemicals	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00			
Biomass	IE/NO	NCV	0,00	0,00	0,00 [3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00			
d. Pulp, Paper and Print	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00			
Biomass	IE/NO	NCV	0,00	0,00	0,00 [3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00			
e. Food Processing, Beverages and Tobacco	0,00	NCV				0,00	0,00	0,00
Liquid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Solid Fuels	IE/NO	NCV	0,00	0,00	0,00			
Gaseous Fuels	IE/NO	NCV	0,00	0,00	0,00			
Biomass	IE/NO	NCV	0,00	0,00	0,00 [3]			
Other Fuels	IE/NO	NCV	0,00	0,00	0,00			
f. Other *(please specify)*	91.507,44	NCV				5.908,87	1,90	0,19
Liquid Fuels	31.360,82	NCV	78,75	11,27	2,68	2.469,81	0,35	0,08
Solid Fuels	10.181,17	NCV	95,00	15,00	3,00	967,21	0,15	0,03
Gaseous Fuels	42.909,54	NCV	57,25	27,45	1,00	2.456,57	1,18	0,04
Biomass	7.055,91	NCV	101,24	30,08	3,97 [3]	714,33	0,21	0,03
Other Fuels	0,00	NCV	0,00	0,00	0,00	15,27	0,00	0,00

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 3 of 4)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.3 Transport	**164.304,16**	NCV					**12.076,89**	**3,35**	**1,27**
Gasoline	84.872,83	NCV	72,97	34,50	10,41		6.193,48	2,93	0,88
Diesel	78.895,29	NCV	74,08	4,55	4,87		5.844,30	0,36	0,38
Natural Gas	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Solid Fuels	0,00	NCV	0,00	0,00	0,00		0,00	0,00	0,00
Biomass	0,00	NCV	0,00	0,00	0,00	[3]	0,00	0,00	0,00
Other Fuels	536,04	NCV	72,97	107,79	0,54		39,12	0,06	0,00
a. Civil Aviation	2.338,89	NCV					168,50	0,01	0,01
Aviation Gasoline	99,46	NCV	73,00	21,90	2,00		7,26	0,00	0,00
Jet Kerosene	2.239,42	NCV	72,00	1,27	3,51		161,24	0,00	0,01
b. Road Transportation	153.453,09	NCV					11.272,98	3,26	1,23
Gasoline	82.533,94	NCV	73,00	35,42	10,60		6.024,98	2,92	0,88
Diesel Oil	70.917,18	NCV	74,00	4,73	5,00		5.247,87	0,34	0,35
Natural Gas	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00	[3]			
Other Fuels *(please specify)*	1,97	NCV					0,13	0,00	0,00
	1,97	NCV	65,00	24,31	5,57		0,13	0,00	0,00
c. Railways	2.860,21	NCV					211,65	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Liquid Fuels	2.860,21	NCV	74,00	4,83	2,06		211,65	0,01	0,01
Other Fuels *(please specify)*	0,00	NCV					0,00	0,00	0,00
	0,00	NCV	0,00	0,00	0,00				
d. Navigation	5.651,97	NCV					423,76	0,07	0,02
Coal	0,00	NCV	0,00	0,00	0,00				
Residual Oil	1.513,16	NCV	78,00	1,76	4,90		118,03	0,00	0,01
Gas/Diesel Oil	3.604,75	NCV	74,00	1,96	4,53		266,75	0,01	0,02
Other Fuels *(please specify)*	534,06	NCV					38,99	0,06	0,00
	534,06	NCV	73,00	108,10	0,52		38,99	0,06	0,00
e. Other Transportation	0,00	NCV					0,00	0,00	0,00
Liquid Fuels	0,00	NCV	0,00	0,00	0,00				
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				

TABLE 1.A(a) SECTORAL BACKGROUND DATA FOR ENERGY
Fuel Combustion Activities - Sectoral Approach
(Sheet 4 of 4)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	AGGREGATE ACTIVITY DATA		IMPLIED EMISSION FACTORS [2]				EMISSIONS		
	Consumption		CO_2	CH_4	N_2O		CO_2	CH_4	N_2O
	(TJ)	[1]	(t/TJ)	(kg/TJ)	(kg/TJ)		(Gg)	(Gg)	(Gg)
1.A.4 Other Sectors	**134.758,68**	NCV					**7.687,64**	**7,88**	**0,31**
Liquid Fuels	67.175,85	NCV	74,04	4,91	2,63		4.973,53	0,33	0,18
Solid Fuels	1.282,71	NCV	95,00	15,00	3,00		121,86	0,02	0,00
Gaseous Fuels	45.236,67	NCV	57,25	73,18	1,00		2.589,80	3,31	0,05
Biomass	21.063,45	NCV	100,96	200,48	3,89 [3]		2.126,59	4,22	0,08
Other Fuels	0,00	NCV	0,00	0,00	0,00		2,46	0,00	0,00
a. Commercial/Institutional	14.516,75	NCV					820,59	1,00	0,02
Liquid Fuels	5.195,86	NCV	73,96	1,66	2,00		384,29	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	7.578,09	NCV	57,25	84,49	1,00		433,85	0,64	0,01
Biomass	1.742,81	NCV	91,32	199,03	2,87 [3]		159,16	0,35	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00		2,46	0,00	0,00
b. Residential	81.970,24	NCV					4.284,84	4,60	0,17
Liquid Fuels	33.840,80	NCV	73,91	5,56	1,99		2.501,07	0,19	0,07
Solid Fuels	48,68	NCV	95,00	15,00	3,00		4,62	0,00	0,00
Gaseous Fuels	31.076,88	NCV	57,25	32,48	1,00		1.779,15	1,01	0,03
Biomass	17.003,88	NCV	102,00	200,00	4,00 [3]		1.734,40	3,40	0,07
Other Fuels	0,00	NCV	0,00	0,00	0,00				
c. Agriculture/Forestry/Fisheries	38.271,69	NCV					2.582,21	2,29	0,12
Liquid Fuels	28.139,19	NCV	74,21	4,72	3,51		2.088,17	0,13	0,10
Solid Fuels	1.234,03	NCV	95,00	15,00	3,00		117,23	0,02	0,00
Gaseous Fuels	6.581,71	NCV	57,25	252,33	1,00		376,80	1,66	0,01
Biomass	2.316,76	NCV	100,59	205,13	3,85 [3]		233,03	0,48	0,01
Other Fuels	0,00	NCV	0,00	0,00	0,00				
1.A.5 Other (Not elsewhere specified)[4]	**0,00**	NCV					**96,87**	**0,01**	**0,01**
Liquid Fuels	0,00	NCV	0,00	0,00	0,00		96,87	0,01	0,01
Solid Fuels	0,00	NCV	0,00	0,00	0,00				
Gaseous Fuels	0,00	NCV	0,00	0,00	0,00				
Biomass	0,00	NCV	0,00	0,00	0,00 [3]				
Other Fuels	0,00	NCV	0,00	0,00	0,00				

[4] Include military fuel use under this category.

Documentation Box:

1A 2f-note: Manufacturing Industries and Construction incl. industry mobile sources and machinery

TABLE 1.A(b) SECTORAL BACKGROUND DATA FOR ENERGY
CO_2 from Fuel Combustion Activities - Reference Approach (IPCC Worksheet 1-1)
(Sheet 1 of 1)

Denmark
2001
2003, May 7

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	726.825,00	130.796,00	513.160,00		-61,00	344.522,00	1,00	NCV	344.522,00	20,00	6.890,44		6.890,44	1,00	25.264,95
		Orimulsion	TJ	0,00	33.435,00	0,00		3.213,00	30.222,00	1,00	NCV	30.222,00	22,00	664,88		664,88	1,00	2.437,91
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		45.239,00	56.758,00	7,00	588,00	-12.114,00	1,00	NCV	-12.114,00	18,90	-228,95		-228,95	1,00	-839,50
		Jet Kerosene	TJ		34.781,00	17.571,00	33.614,00	4.880,00	-21.284,00	1,00	NCV	-21.284,00	19,50	-415,04		-415,04	1,00	-1.521,81
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		78.349,00	37.936,00	21.389,00	708,00	18.316,00	1,00	NCV	18.316,00	20,20	369,98	0,00	369,98	1,00	1.356,61
		Residual Fuel Oil	TJ		29.906,00	46.022,00	25.924,00	208,00	-42.248,00	1,00	NCV	-42.248,00	21,10	-891,43		-891,43	1,00	-3.268,59
		LPG	TJ		326,00	4.674,00		91,00	-4.439,00	1,00	NCV	-4.439,00	17,20	-76,35	0,00	-76,35	1,00	-279,95
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		938,00	336,00		-151,00	753,00	1,00	NCV	753,00	20,00	15,06	13,21	1,85	1,00	6,78
		Bitumen	TJ		6.872,00	291,00		-184,00	6.765,00	1,00	NCV	6.765,00	22,00	148,83	168,77	-19,94	1,00	-73,11
		Lubricants	TJ		2.584,00	426,00	163,00	-39,00	2.034,00	1,00	NCV	2.034,00	20,00	40,68	20,74	19,94	1,00	73,11
		Petroleum Coke	TJ		9.375,00	878,00		167,00	8.330,00	1,00	NCV	8.330,00	27,50	229,08		229,08	1,00	839,94
		Refinery Feedstocks	TJ		7.553,00	793,00		213,00	6.547,00	1,00	NCV	6.547,00	20,00	130,94		130,94	1,00	480,11
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												337.404,00		6.878,12	202,72	6.675,40		24.476,45
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	173.270,00	4.094,00	0,00	-5.675,00	174.851,00	1,00	NCV	174.851,00	25,80	4.511,16		4.511,16	1,00	16.540,90
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	14,00	10,00		-2,00	6,00	1,00	NCV	6,00	27,60	0,17		0,17	1,00	0,61
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		894,00	28,00		-241,00	1.107,00	1,00	NCV	1.107,00	29,50	32,66		32,66	1,00	119,74
Solid Fuel Totals												175.964,00		4.543,98	0,00	4.543,98		16.661,25
Gaseous Fossil		Natural Gas (Dry)	TJ	317.756,00	0,00	127.881,00		-3.733,00	193.608,00	1,00	NCV	193.608,00	15,30	2.962,20	0,00	2.962,20	1,00	10.861,41
Total												**706.976,00**		**14.384,30**	**202,72**	**14.181,58**		**51.999,11**
Biomass total												75.996,00		2.248,76	0,00	2.248,76		8.245,44
		Solid Biomass	TJ	71.037,00	1.721,00	0,00		0,00	72.758,00	1,00	NCV	72.758,00	29,90	2.175,46		2.175,46	1,00	7.976,70
		Liquid Biomass	TJ	191,00	0,00	0,00		0,00	191,00	1,00	NCV	191,00	20,00	3,82		3,82	1,00	14,01
		Gas Biomass	TJ	3.047,00	0,00	0,00		0,00	3.047,00	1,00	NCV	3.047,00	22,80	69,47		69,47	1,00	254,73

[1] To convert quantities expressed in natural units to energy units, use net calorific values (NCV). If gross calorific values (GCV) are used in this table, please indicate this by replacing "NCV" with "GCV" in this column.

[2] If Anthracite is not separately available, include with Other Bituminous Coal.

TABLE 1.A(c) COMPARISON OF CO_2 EMISSIONS FROM FUEL COMBUSTION
(Sheet 1 of 1)

Denmark

2001

2003, May 7

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	337,40	24.476,45	318,74	23.728,97	5,86	3,15
Solid Fuels (excluding international bunkers)	175,96	16.661,25	175,45	16.667,86	0,29	-0,04
Gaseous Fuels	193,61	10.861,41	193,45	11.074,99	0,08	-1,93
Other [3]	-10,63	634,32	0,54	673,44	-2.083,06	-5,81
Total [3]	**696,35**	**52.633,44**	**688,18**	**52.145,26**	**1,19**	**0,94**

[1] "National approach" is used to indicate the approach (if different from the Reference approach) followed by the Party to estimate its CO_2 emissions from fuel combustion reported in the national GHG inventory.

[2] Difference of the Reference approach over the National approach (i.e. difference = 100% x ((RA-NA)/NA), where NA = National approach and RA = Reference approach).

[3] Emissions from biomass are not included.

Note: In addition to estimating CO_2 emissions from fuel combustion by sector, Parties should also estimate these emissions using the IPCC Reference approach, as found in the IPCC Guidelines, Worksheet 1-1(Volume 2. Workbook). The Reference approach is to assist in verifying the sectoral data. Parties should also complete the above tables to compare the alternative estimates, and if the emission estimates lie more than 2 percent apart, should explain the source of this difference in the documentation box provided.

Documentation Box:

Non-energy use of fuels is not included in the Danish National Approach. Fuel consumption for non-energy (10,63 Pj) is subtracted in Reference Approach to make results comparable. Inclusion of these fuels in future inventories will be considered.
CO2 emission from plastic part of municipal wastes is included in the Danish National Approach.
CO2 emission from the plastic part of municipal wastes is added in Reference Approach. (Other fuels of sources 1A1, 1A2 and 1A4)

TABLE 1.A(d) SECTORAL BACKGROUND DATA FOR ENERGY
Feedstocks and Non-Energy Use of Fuels
(Sheet 1 of 1)

Denmark
2001
2003, May 7

FUEL TYPE [1]	ACTIVITY DATA AND RELATED INFORMATION		IMPLIED EMISSION FACTOR	ESTIMATE
	Fuel quantity (TJ)	Fraction of carbon stored	Carbon emission factor (t C/TJ)	of carbon stored in non energy use of fuels (Gg C)
Naphtha [2]	881,00	0,75	19,99	13,21
Lubricants	2.074,00	0,50	20,00	20,74
Bitumen	7.671,00	1,00	22,00	168,77
Coal Oils and Tars (from Coking Coal)			0,00	
Natural Gas[2]			0,00	
Gas/Diesel Oil [2]			0,00	
LPG [2]			0,00	
Butane [2]			0,00	
Ethane [2]			0,00	
Other *(please specify)*				
			0,00	

Additional information [a]

CO_2 not emitted (Gg CO_2)	Subtracted from energy sector *(specify source category)*
48,44	
76,05	
618,82	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	
0,00	

[1] Where fuels are used in different industries, please enter in different rows.
[2] Enter these fuels when they are used as feedstocks.

[a] The fuel lines continue from the table to the left.

Note: The table is consistent with the IPCC Guidelines. Parties that take into account the emissions associated with the use and disposal of these feedstocks could continue to use their methodology, and provide explanation notes in the documentation box below.

Documentation box: A fraction of energy carriers is stored in such products as plastics or asphalt. The non-stored fraction of the carbon in the energy carrier or product is oxidized, resulting in carbon dioxide emissions, either during the use of the energy carriers in the industrial production (e.g. fertilizer production), or during the use of the products (e.g. solvents, lubricants), or in both (e.g. monomers). To report associated emissions use the above table, filling an extra "Additional information" table, as shown below.

Associated CO_2 emissions (Gg)	Allocated under *(Specify source category)* [a]

[a] e.g. Industrial Processes, Waste Incineration, etc.

TABLE 1.B.1 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Solid Fuels
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTOR		EMISSIONS	
	Amount of fuel produced [1] (Mt)	CH_4 (kg/t)	CO_2 (kg/t)	CH_4 (Gg)	CO_2 (Gg)
1. B. 1. a. Coal Mining and Handling	0,00			0,00	0,00
i. Underground Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
ii. Surface Mines[2]	0,00	0,00	0,00	0,00	0,00
Mining Activities		0,00	0,00		
Post-Mining Activities		0,00	0,00		
1. B. 1. b. Solid Fuel Transformation	0,00	0,00	0,00		
1. B. 1. c. Other *(please specify)* [3]				3,28	0,00
	6,92	0,47	0,00	3,28	

Additional information [a]

Description	Value
Amount of CH_4 drained (recovered) and utilized or flared (Gg)	
Number of active underground mines	
Number of mines with drainage (recovery) systems	

[a] For underground mines.

[1] Use the documentation box to specify whether the fuel amount is based on the run-of-mine (ROM) production or on the saleable production.

[2] Emissions both for Mining Activities and Post-Mining Activities are calculated with the activity data in lines Underground Mines and Surface Mines respectively.

[3] Please click on the button to enter any other solid fuel related activities resulting in fugitive emissions, such as emissions from abandoned mines and waste piles.

Note: There are no clear references to the coverage of 1.B.1.b. and 1.B.1.c. in the IPCC Guidelines. Make sure that the emissions entered here are not reported elsewhere. If they are reported under another source category, indicate this (IE) and make a reference in Table 9 (completeness) and/or in the documentation box.

Documentation box:

TABLE 1.B.2 SECTORAL BACKGROUND DATA FOR ENERGY
Fugitive Emissions from Oil and Natural Gas
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA			IMPLIED EMISSION FACTORS			EMISSIONS		
	Description [1]	Unit	Value	CO_2 (kg/unit) [2]	CH_4 (kg/unit) [2]	N_2O (kg/unit) [2]	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
1. B. 2. a. Oil [3]							**0,00**	**0,04**	
i. Exploration	*(e.g. number of wells drilled)*		0,00	0,00	0,00				
ii. Production [4]	*(e.g. PJ of oil produced)*		0,00	0,00	0,00				
iii. Transport	*(e.g. PJ oil loaded in tankers)*		0,00	0,00	0,00				
iv. Refining / Storage	*(e.g. PJ oil refined)*		0,00	0,00	0,00				
v. Distribution of oil products	*(e.g. PJ oil refined)*	Mg pro	2009247	0,00	0,00			0,00	
vi. Other		Mg Cru	8284000	0,00	0,01			0,04	
1. B. 2. b. Natural Gas							**0,00**	**1,92**	
Exploration				0,00	0,00				
i. Production [4] / Processing	*(e.g. PJ gas produced)*	1000 m	2500000	0,00	0,65		0,00	1,63	
ii. Transmission	*Gas produced and stock change*	Mm3 ga	11061,61	0,00	25,83			0,29	
Distribution	*Gas distributed*	Mm3 gas		0,00	0,00				
iii. Other Leakage	*(e.g. PJ gas consumed)*			0,00	0,00				
at industrial plants and power stations				0,00	0,00				
in residential and commercial sectors				0,00	0,00				
1. B. 2. c. Venting [5]							**0,00**	**0,00**	
i. Oil	*(e.g. PJ oil produced)*			0,00	0,00				
ii. Gas	*(e.g. PJ gas produced)*			0,00	0,00				
iii. Combined				0,00	0,00				
Flaring							**633,32**	**1,76**	**0,01**
i. Oil	*(e.g. PJ gas consumption)*	GJ	221461	57,10	0,00	0,00	12,65		0,00
ii. Gas	*(e.g. PJ gas consumption)*	GJ	10841549	57,25	0,16	0,00	620,68	1,76	0,01
iii. Combined				0,00	0,00	0,00			
1.B.2.d. Other *(please specify)* [6]							**0,00**	**0,00**	**0,00**
				0,00	0,00	0,00			

Additional information

Description	Value	Unit
Pipelines length (km)		
Number of oil wells		
Number of gas wells		
Gas throughput [a]		
Oil throughput [a]		
Other relevant information *(specify)*		

[a] In the context of oil and gas production, throughput is a measure of the total production, such as barrels per day of oil, or cubic meters of gas per year. Specify the units of the reported value in the unit column. Take into account that these values should be consistent with the activity data reported under the production rows of the main table.

[1] Specify the activity data used and fill in the activity data description column, as given in the examples in brackets. Specify the unit of the activity data in the unit column. Use the document box to specify whether the fuel amount is based on the raw material production or on the saleable production. Note cases where more than one variable is used as activity data.
[2] The unit of the implied emission factor will depend on the units of the activity data used, and is therefore not specified in this column. The unit of the implied emission factor for each activity will be kg/unit of activity data.
[3] Use the category also to cover emissions from combined oil and gas production fields. Natural gas processing and distribution from these fields should be included under 1.B.2.b.ii and 1.B.2.b.iii, respectively.
[4] If using default emission factors these categories will include emissions from production other than venting and flaring.
[5] If using default emission factors, emissions from Venting and Flaring from all oil and gas production should be accounted for here. Parties using the IPCC software could report those emissions together, indicating so in the documentation box.
[6] For example, fugitive CO_2 emissions from production of geothermal power could be reported here.

Documentation box:

TABLE 1.C SECTORAL BACKGROUND DATA FOR ENERGY
International Bunkers and Multilateral Operations
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS			EMISSIONS		
	Consumption (TJ)	CO_2 (t/TJ)	CH_4 (kg/TJ)	N_2O (kg/TJ)	CO_2 (Gg)	CH_4 (Gg)	N_2O (Gg)
Marine Bunkers	**47.312,67**				**3.604,83**	**0,08**	**0,23**
Gasoline	0,00	0,00	0,00	0,00			
Gas/Diesel Oil	21.388,99	74,00	1,69	4,70	1.582,78	0,04	0,10
Residual Fuel Oil	25.923,68	78,00	1,76	4,90	2.022,05	0,05	0,13
Lubricants	0,00	0,00	0,00	0,00			
Coal	0,00	0,00	0,00	0,00			
Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00
		0,00	0,00	0,00			
Aviation Bunkers	**33.027,02**				**2.377,95**	**0,04**	**0,08**
Jet Kerosene	33.018,58	72,00	1,13	2,47	2.377,34	0,04	0,08
Gasoline	8,44	73,00	21,92	2,01	0,62	0,00	0,00
Multilateral Operations [1]							

Additional information

Fuel consumption	Allocation [a] (percent)	
	Domestic	International
Marine	10,67	89,33
Aviation	6,61	93,39

[a] For calculating the allocation of fuel consumption, use the sums of fuel consumption by domestic navigation and aviation (Table 1.A(a)) and by international bunkers (Table 1.C).

[1] Parties may choose to report or not report the activity data and emission factors for multilateral operation consistent with the principle of confidentiality stated in the UNFCCC reporting guidelines on inventories. In any case, Parties should report the emissions from multilateral operations, where available, under the Memo Items section of the Summary tables and in the Sectoral report table for energy.

Note: In accordance with the IPCC Guidelines, international aviation and marine bunker fuel emissions from fuel sold to ships or aircraft engaged in international transport should be excluded from national totals and reported separately for informational purposes only.

Documentation box: Please explain how the consumption of international marine and aviation bunkers fuels was estimated and separated from the domestic consumption.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 1 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
Total Industrial Processes	**1.464,20**	**0,00**	**0,00**	**1.138,48**	**647,32**	**26,19**	**22,13**	**0,00**	**0,00**	**0,41**	**0,00**	**0,45**	**0,00**
A. Mineral Products	**1.464,20**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
1. Cement Production	1.360,59												
2. Lime Production	103,61												
3. Limestone and Dolomite Use	0,00												
4. Soda Ash Production and Use	0,00												
5. Asphalt Roofing	0,00												
6. Road Paving with Asphalt	0,00												
7. Other *(please specify)*	0,00	0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,41**	**0,00**	**0,00**	**0,00**
1. Ammonia Production	0,00	0,00											
2. Nitric Acid Production			0,00							0,41			
3. Adipic Acid Production			0,00										
4. Carbide Production	0,00	0,00											
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
													0,00
C. Metal Production	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1. Iron and Steel Production	0,00	0,00											
2. Ferroalloys Production	0,00	0,00											
3. Aluminium Production	0,00	0,00					0,00						
4. SF_6 Used in Aluminium and Magnesium Foundries									0,00				
5. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines. A = Actual emissions based on Tier 2 approach of the IPCC Guidelines. This only applies in sectors where methods exist for both tiers.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

TABLE 2(I) SECTORAL REPORT FOR INDUSTRIAL PROCESSES
(Sheet 2 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
				P	A	P	A	P	A				
	(Gg)			CO_2 equivalent (Gg)				(Gg)					
D. Other Production	**0,00**									**0,00**	**0,00**	**0,45**	**0,00**
1. Pulp and Paper													
2. Food and Drink[2]	0,00											0,45	
E. Production of Halocarbons and SF_6					**0,00**		**0,00**		**0,00**				
1. By-product Emissions					0,00		0,00		0,00				
Production of HCFC-22					0,00								
Other					0,00		0,00		0,00				
2. Fugitive Emissions					0,00		0,00		0,00				
3. Other *(please specify)*					0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6				**1.138,48**	**647,32**	**26,19**	**22,13**	**0,00**	**0,00**				
1. Refrigeration and Air Conditioning Equipment				855,07	449,17	22,55	18,49		0,00				
2. Foam Blowing				273,02	186,13		0,00		0,00				
3. Fire Extinguishers					0,00		0,00		0,00				
4. Aerosols/ Metered Dose Inhalers				10,40	12,01		0,00		0,00				
5. Solvents					0,00		0,00		0,00				
6. Semiconductor Manufacture					0,00		0,00		0,00				
7. Electrical Equipment								0.00	0,00				
8. Other *(please specify)*				0,00	0,00	3,64	3,64	0,00	0,00				
Emissions of SF6 from (1) window plate production and (2) running shoes and of PFC used as detergent.						3,64	3,64	0,00	0,00				
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[2] CO_2 from Food and Drink Production (e.g. gasification of water) can be of biogenic or non-biogenic origin. Only information on CO_2 emissions of non-biogenic origin should be reported.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Emissions of CO_2, CH_4 and N_2O

2001

(Sheet 1 of 2)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
A. Mineral Products						**1.464,20**		**0,00**		**0,00**	
1. Cement Production	Production of Cement	2.528,98	0,54			1.360,59					
2. Lime Production	Production of Lime and Brigs	448,44	0,23			103,61					
3. Limestone and Dolomite Use		0,00	0,00								
4. Soda Ash						0,00					
Soda Ash Production		0,00	0,00								
Soda Ash Use			0,00								
5. Asphalt Roofing		0,00	0,00								
6. Road Paving with Asphalt		0,00	0,00								
7. Other *(please specify)*						0,00		0,00		0,00	
Glass Production			0,00								
		0,00	0,00	0,00	0,00						
B. Chemical Industry						**0,00**		**0,00**		**0,00**	
1. Ammonia Production [3]		0,00	0,00	0,00	0,00						
2. Nitric Acid Production		382,00			0,00						
3. Adipic Acid Production		0,00			0,00						
4. Carbide Production			0,00	0,00		0,00		0,00			
Silicon Carbide		0,00	0,00	0,00							
Calcium Carbide			0,00	0,00							
5. Other *(please specify)*						0,00		0,00		0,00	
Carbon Black				0,00							
Ethylene			0,00	0,00	0,00						
Dichloroethylene				0,00							
Styrene				0,00							
Methanol				0,00							
		0,00	0,00	0,00	0,00						

[1] Where the IPCC Guidelines provide options for activity data, e.g. cement or clinker for estimating the emissions from Cement Production, specify the activity data used (as shown in the example in brackets) in order to make the choice of emission factor more transparent and to facilitate comparisons of implied emission factors.

[2] Enter cases in which the final emissions are reduced with the quantities of emission recovery, oxidation, destruction, transformation. Adjusted emissions are reported and the quantitative information on recovery, oxidation, destruction, and transformation should be given in the additional columns provided.

[3] To avoid double counting make offsetting deductions from fuel consumption (e.g. natural gas) in Ammonia Production, first for feedstock use of the fuel, and then to a sequestering use of the feedstock.

TABLE 2(I).A-G SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Emissions of CO_2, CH_4 and N_2O

(Sheet 2 of 2)

Denmark

2001

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS			EMISSIONS[2]					
	Production/Consumption Quantity		CO_2	CH_4	N_2O	CO_2		CH_4		N_2O	
	Description [1]	(kt)	(t/t)	(t/t)	(t/t)	(Gg)	[2]	(Gg)	[2]	(Gg)	[2]
C. Metal Production [4]						**0,00**		**0,00**		**0,00**	
1. Iron and Steel Production		0,00	0,00			0,00		0,00			
Steel		0,00	0,00								
Pig Iron		0,00	0,00	0,00							
Sinter		0,00	0,00	0,00							
Coke		0,00	0,00	0,00							
Other *(please specify)*						0,00		0,00			
		0,00	0,00	0,00	0,00						
2. Ferroalloys Production		0,00	0,00	0,00							
3. Aluminium Production		0,00	0,00	0,00							
4. SF_6 Used in Aluminium and Magnesium Foundries											
5. Other *(please specify)*						0,00		0,00		0,00	
		4,53	0,00	0,00	0,00						
D. Other Production						**0,00**					
1. Pulp and Paper											
2. Food and Drink			0,00								
G. Other *(please specify)*						**0,00**		**0,00**		**0,00**	
		0,00	0,00	0,00	0,00	0,00					

[4] More specific information (e.g. data on virgin and recycled steel production) could be provided in the documentation box.

Note: In case of confidentiality of the activity data information, the entries should provide aggregate figures but there should be a note in the documentation box indicating this.

Documentation box:
Information on Industrial processes A-D is given in the NIR 2003

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 1 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs[1]	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs[1]	SF_6
	(t)[2]																						
Total Actual Emissions of Halocarbons (by chemical) and SF_6	**0,00**	**11,05**	**0,00**	**0,00**	**48,77**	**0,00**	**268,74**	**13,41**	**0,00**	**40,09**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**3,16**	**0,00**	**0,00**	**0,00**	**0,00**		**1,27**
C. Metal Production															**0,00**	**0,00**							**0,00**
Aluminium Production															0,00	0,00							
SF_6 Used in Aluminium Foundries																							0,00
SF_6 Used in Magnesium Foundries																							0,00
E. Production of Halocarbons and SF_6	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
1. By-product Emissions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
Production of HCFC-22	0,00																						
Other																							
2. Fugitive Emissions																							
3. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
F(a). Consumption of Halocarbons and SF_6 (actual emissions - Tier 2)	**0,00**	**11,05**	**0,00**	**0,00**	**48,77**	**0,00**	**268,74**	**13,41**	**0,00**	**40,09**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**3,16**	**0,00**	**0,00**	**0,00**	**0,00**		**1,27**
1. Refrigeration and Air Conditioning Equipment		7,33			45,05		127,57	0,71		40,09							2,64						
2. Foam Blowing		3,72			3,72		131,94	12,70															
3. Fire Extinguishers																							
4. Aerosols/Metered Dose Inhalers							9,24																
5. Solvents																							
6. Semiconductor Manufacture																							
7. Electrical Equipment																							0,53
8. Other *(please specify)*	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,52	0,00	0,00	0,00	0,00		0,75
																	0,52						0,75
G. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**

[1] Although shaded, the columns with HFCs and PFCs totals on sheet 1 are kept for consistency with sheet 2 of the table.

[2] Note that the units used in this table differ from those used in the rest of the Sectoral report tables, i.e. [t] instead of [Gg].

Note: Where information is confidential the entries should provide aggregate figures but there should be a note indicating this in the relevant documentation boxes of the Sectoral background data tables or as a comment to the corresponding cell.
Gases with GWP not yet agreed upon by the COP, should be reported in Table 9 (Completeness), sheet 2.

TABLE 2(II) SECTORAL REPORT FOR INDUSTRIAL PROCESSES - EMISSIONS OF HFCs, PFCs AND SF_6
(Sheet 2 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	HFC-23	HFC-32	HFC-41	HFC-43-10mee	HFC-125	HFC-134	HFC-134a	HFC-152a	HFC-143	HFC-143a	HFC-227ea	HFC-236fa	HFC-245ca	Total HFCs	CF_4	C_2F_6	C_3F_8	C_4F_{10}	c-C_4F_8	C_5F_{12}	C_6F_{14}	Total PFCs	SF_6
	(t)[2]																						
F(p). Total Potential Emissions of Halocarbons (by chemical) and SF_6 [3]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,00**
Production[4]																							
Import:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Export:	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00		0,00
In bulk																							
In products [5]																							
Destroyed amount																							

GWP values used	**11700**	**650**	**150**	**1300**	**2800**	**1000**	**1300**	**140**	**300**	**3800**	**2900**	**6300**	**560**		**6500**	**9200**	**7000**	**7000**	**8700**	**7500**	**7400**		**23900**
Total Actual Emissions [6] (Gg CO_2 eq.)	**0,00**	**7,18**	**0,00**	**0,00**	**136,56**	**0,00**	**349,37**	**1,88**	**0,00**	**152,33**	**0,00**	**0,00**	**0,00**	**647,32**	**0,00**	**0,00**	**22,13**	**0,00**	**0,00**	**0,00**	**0,00**	**22,13**	**30,43**
C. Metal Production															0,00	0,00						0,00	0,00
E. Production of Halocarbons and SF_6	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F(a). Consumption of Halocarbons and SF_6	0,00	7,18	0,00	0,00	136,56	0,00	349,37	1,88	0,00	152,33	0,00	0,00	0,00	647,32	0,00	0,00	22,13	0,00	0,00	0,00	0,00	22,13	30,43
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Ratio of Potential/Actual Emissions from Consumption of Halocarbons and SF_6																							
Actual emissions - F(a) (Gg CO_2 eq.)	0,00	7,18	0,00	0,00	136,56	0,00	349,37	1,88	0,00	152,33	0,00	0,00	0,00	647,32	0,00	0,00	22,13	0,00	0,00	0,00	0,00	22,13	30,43
Potential emissions - F(p) (7) (Gg CO_2 eq.)	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Potential/Actual emissions ratio	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[3] Potential emissions of each chemical of halocarbons and SF6 estimated using Tier 1a or Tier 1b of the IPCC Guidelines (Volume 3. Reference Manual, pp. 2.47-2.50). When potential emissions estimates are available in a disaggregated manner corresponding to the subsectors for actual emissions defined on sheet 1 of this table, these should be reported in an annex to sheet 2, using the format of sheet 1, sector F(a). Use Summary 3 of this common reporting format to indicate whether Tier 1a or Tier 1b was used.

[4] Production refers to production of new chemicals. Recycled substances could be included here, but it should be ensured that double counting of emissions is avoided. Relevant explanations should be provided as a comment to the corresponding cell.

[5] Relevant just for Tier 1b.

[6] Sums of the actual emissions of each chemical of halocarbons and SF6 from the source categories given in sheet 1 of the table multiplied by the corresponding GWP values.

[7] Potential emissions of each chemical of halocarbons and SF6 taken from row F(p) multiplied by the corresponding GWP values.

Note: As stated in the revised UNFCCC guidelines, Parties should report actual emissions of HFCs, PFCs and SF_6, where data are available, providing disaggregated data by chemical and source category in units of mass and in CO_2 equivalents. Parties reporting actual emissions should also report potential emissions for the sources where the concept of potential emissions applies, for reasons of transparency and comparability.

TABLE 2(II). C, E SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Metal Production; Production of Halocarbons and SF_6

2001

(Sheet 1 of 1)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS[2]	EMISSIONS[2]	
	Description [1]	(t)	(kg/t)	(t)	[3]
C. PFCs and SF_6 from Metal Production					
PFCs from Aluminium Production					
CF_4			0,00		
C_2F_6			0,00		
SF_6				0,00	
Aluminium Foundries	*(SF_6 consumption)*		0,00		
Magnesium Foundries			0,00		
E. Production of Halocarbons and SF_6					
1. By-product Emissions					
Production of HCFC-22					
HFC-23			0,00		
Other *(specify chemical)*					
			0,00		
2. Fugitive Emissions					
HFCs *(specify chemical)*					
			0,00		
PFCs *(specify chemical)*					
			0,00		
SF_6			0,00		
3. Other *(please specify)*					
			0,00		

[1] Specify the activity data used as shown in the examples within brackets. Where applying Tier 1b (for C), Tier 2 (for E) and country specific methods, specify any other relevant activity data used in the documentation box below.

[2] Emissions and implied emission factors are after recovery.

[3] Enter cases in which the final emissions are reported after subtracting the quantities of emission recovery, oxidation, destruction, transformation. Enter these quantities in the specified column and use the documentation box for further explanations.

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note in the documentation box indicating this.

Documentation box:

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES Denmark
Consumption of Halocarbons and SF_6 2001
(Sheet 1 of 2) 2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
1 Refrigeration									
Air Conditioning Equipment									
Domestic Refrigeration *(Specify chemical)* [2]									
HFC-134	130,12	678,39		2,00	1,00	0,00	2,60	6,22	0,00
HFC-404a	6,54	64,59		2,00	1,00	0,00	0,13	0,60	0,00
Commercial Refrigeration									
HFC-134a	102,44	650,03		1,50	10,00	0,00	1,54	61,01	0,00
HFC-401a	4,10	39,43		1,50	10,00	0,00	0,06	4,42	0,00
HFC-404a	113,72	705,74		1,50	10,00	0,00	1,71	65,97	0,00
HFC-402a	0,80	41,99		1,50	10,00	0,00	0,01	4,64	0,00
HFC-407c	40,30	132,49		1,50	10,00	0,00	0,60	10,31	0,00
HFC-507c	2,20	43,51		1,50	10,00	0,00	0,03	4,59	0,00
Other HFCs (~410a)	16,25	100,49		1,50	10,00	0,00	0,24	9,39	0,00
PFC	3,22	26,45		1,50	10,00	0,00	0,05	2,59	0,00
Transport Refrigeration									
HFC-134a	2,40	8,67	0,00	0,50	17,00	0,00	0,12	1,31	0,00
HFC-402a	0,00	3,46	0,00	0,50	17,00	0,00	0,00	0,73	0,00
HFC-404a	5,90	24,86	0,00	0,50	17,00	0,00	0,30	3,94	0,00
Industrial Refrigeration									
Stationary Air-Conditioning									
Mobile Air-Conditioning									
HFC-134a	30,90	205,10		4,50	30,00	0,00	1,39	44,79	0,00
2 Foam Blowing									
Hard Foam									
HFC-134a (refrigerators)	158,89	1.461,90		10,00	4,50	0,00	15,89	68,91	0,00
HFC-134a (shoes)	5,00	41,05		15,00	4,50	0,00	0,75	1,34	0,00
HFC-152a (refrigerators)	0,00	2,73		10,00	4,50	0,00	0,00	0,13	0,00
HFC-152a (other use)	0,00	11,83		10,00	4,50	0,00	0,00	0,56	0,00
Soft Foam									
HFC-134a (foam plastics)	35,05	0,00	0,00	100,00	0,00	0,00	35,05	0,00	0,00
HFC-134a (joint filler)	10,00	0,00	0,00	100,00	0,00	0,00	10,00	0,00	0,00
HFC-152a (joint filler)	1,00	0,00	0,00	100,00	0,00	0,00	1,00	0,00	0,00
HFC-152a (foam plastics)	11,14	0,00	0,00	100,00	0,00	0,00	11,14	0,00	0,00
Other HFCs (~410a) (other use)	7,44	0,00	0,00	100,00	0,00	0,00	7,44	0,00	0,00

[1] Parties should use the documentation box to provide information on the amount of the chemical recovered (recovery efficiency) and other relavant information used in the emission estimation.

[2] Please click on the button to specify the chemical consumed, as given in the example. If needed, new rows could be added for reporting the disagregated chemicals from a source by clicking on the corresponding button.

Note: Table 2.(II).F provides for reporting of the activity data and emission factors used to calculate actual emissions from consumption of halocarbons and SF6 using the "bottom-up approach" (based on the total stock of equipment and estimated emission rates from this equipment). Some Parties may prefer to estimate their actual emissions following the alternative "top-down approach" (based on annual sales of equipment and/or gas). These Parties should provide the activity data used in the current format and any other relevant information in the documentation box at the end of Table2(II)Fs2. Data these Parties should provide includes (1) the amount of fluid used to fill new products, (2) the amount of fluid used to service existing products, (3) the amount of fluid originally used to fill retiring products (the total nameplate capacity of retiring products), (4) the product lifetime, and (5) the growth rate of product sales, if this has been used to calculate the amount of fluid originally used to fill retiring products. Alternatively, Parties may provide alternative formats with equivalent information. These formats may be considered for future versions of the common reporting format after the trial period.

TABLE 2(II).F SECTORAL BACKGROUND DATA FOR INDUSTRIAL PROCESSES

Denmark

Consumption of Halocarbons and SF_6

2001

(Sheet 2 of 2)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA *Amount of fluid*			IMPLIED EMISSION FACTORS			EMISSIONS		
	Filled in new manufactured products	In operating systems (average annual stocks)	Remained in products at decommissioning [1]	Product manufacturing factor	Product life factor	Disposal loss factor	From manufacturing	From stocks	From disposal
	(t)			(% per annum)			(t)		
3 Fire Extinguishers									
4 Aerosols									
Metered Dose Inhalers									
Other									
HFC-134a (Aerosol spray)	8,00	7,68		0,00			0,00	9,24	
5 Solvents									
6 Semiconductors									
7 Electric Equipment									
SF6	4,37	61,19	0,00	5,00	0,50	5,00	0,22	0,29	0,02
8 Other *(please specify)*									
SF6 (sealed glazing units)	0,16	39,90	0,00	15,00	1,00	65,00	0,02	0,40	0,00
SF6 (laboratories)	0,21	0,00	0,00	100,00	0,00	0,00	0,21	0,00	0,00
SF6 (running shoes)	0,00	0,11	0,00	0,00	100,00	0,00	0,00	0,11	0,00

Note: Where the activity data are confidential, the entries should provide aggregate figures, but there should be a note indicating this and explanations in the documentation box.

Documentation box:

HFCs accounted for in this table follow their trade name; they consist of the HFCs in the Table2(II)s1 according to a Table found in the NIR 2003.
This Table accounts for the main activities leading to emissions of HFCs and PFCs, but not all emissions as compared to Table2(II)s1 are accounted for in this Table.
SF6 (sealed glazing units): SF6 used as insulator in sealed glazing units for window panes. The amount of SF6 accounted for in the model is for products less than 20 years old, where decommissioning is not estimated to have taken place.
SF6 (laboratories): SF6 in small amounts used for experimental tracer studies due to outstanding characteristics of the gas.
SF6 (running shoes): SF6 used as elastic material in the sole of running shoes. Originates from imported shoes only.
Refer to the NIR 2003 for further information

TABLE 3 SECTORAL REPORT FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2	N_2O	NMVOC
	(Gg)		
Total Solvent and Other Product Use	**111,75**	**0,00**	**38,01**
A. Paint Application	**72,37**		**23,22**
B. Degreasing and Dry Cleaning	**0,00**		
C. Chemical Products, Manufacture and Processing			**2,15**
D. Other *(please specify)*	39,38	0,00	12,64
(Use of N_2O for Anaesthesia)	0,00		
(N_2O from Fire Extinguishers)	0,00		
(N_2O from Aerosol Cans)	0,00		
(Other Use of N_2O)	0,00		
	39,38		12,64

Please account for the quantity of carbon released in the form of NMVOC in both the NMVOC and the CO_2 columns.

Note: The IPCC Guidelines do not provide methodologies for the calculation of emissions of N_2O from Solvent and Other Product Use. If reporting such data, Parties should provide additional information (activity data and emission factors) used to make these estimates in the documentation box to Table 3.A-D.

TABLE 3.A-D SECTORAL BACKGROUND DATA FOR SOLVENT AND OTHER PRODUCT USE
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA		IMPLIED EMISSION FACTORS	
	Description	(kt)	CO_2 (t/t)	N_2O (t/t)
A. Paint Application		**0,00**	**0,00**	**0,00**
B. Degreasing and Dry Cleaning		**0,00**	**0,00**	**0,00**
C. Chemical Products, Manufacture and Processing				
D. Other *(please specify)* [1]				
(Use of N_2O for Anaesthesia)		0,00	0,00	0,00
(N_2O from Fire Extinguishers)		0,00	0,00	0,00
(N_2O from Aerosol Cans)		0,00	0,00	0,00
(Other Use of N_2O)		0,00	0,00	0,00

[1] Some probable sources are provided in brackets. Complement the list with other relevant sources. Make sure that the order is the same as in Table 3.

Note: The table follows the format of the IPCC Sectoral Report for Solvent and Other Product Use, although some of the source categories are not relevant to the direct GHG emissions.

Documentation box:

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 1 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
Total Agriculture	**172,95**	**25,54**	**0,00**	**0,00**	**1,21**
A. Enteric Fermentation	**130,83**				
1. Cattle	112,32				
Dairy Cattle	64,83				
Non-Dairy Cattle	47,49				
2. Buffalo	NO				
3. Sheep	0,62				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	2,73				
7. Mules and Asses	NO				
8. Swine	15,16				
9. Poultry	NE				
10. Other *(please specify)*	0,00				
B. Manure Management	**42,12**	**1,42**			**0,00**
1. Cattle	15,64				
Dairy Cattle	13,59				
Non-Dairy Cattle	2,05				
2. Buffalo	NO				
3. Sheep	0,04				
4. Goats	NE				
5. Camels and Llamas	NO				
6. Horses	0,17				
7. Mules and Asses	NO				
8. Swine	25,60				
9. Poultry	0,67				

TABLE 4 SECTORAL REPORT FOR AGRICULTURE
(Sheet 2 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH_4	N_2O	NO_x	CO	NMVOC
	(Gg)				
B. Manure Management (continued)					
10. Anaerobic Lagoons					NE
11. Liquid Systems		0,20			NE
12. Solid Storage and Dry Lot		1,22			NE
13. Other *(please specify)* [redacted]		0,00			0,00
C. Rice Cultivation	0,00				**0,00**
1. Irrigated	0,00				NO
2. Rainfed	0,00				NO
3. Deep Water	0,00				NO
4. Other *(please specify)* [redacted]	0,00				0,00
D. Agricultural Soils [1]	**0,00**	**24,12**			**1,21**
1. Direct Soil Emissions	NE	14,48			1,21
2. Animal Production	NE	0,93			NE
3. Indirect Emissions	NE	8,56			NE
4. Other *(please specify)* [redacted]	0,00	0,15			0,00
E. Prescribed Burning of Savannas	**0,00**	**0,00**			
F. Field Burning of Agricultural Residues	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 . Cereals	0,00	0,00	NO	NO	NO
2. Pulse	0,00	0,00	NO	NO	NO
3 . Tuber and Root	0,00	0,00	NO	NO	NO
4 . Sugar Cane	0,00	0,00	NO	NO	NO
5 . Other *(please specify)* [redacted]	0,00	0,00	0,00	0,00	0,00
G. Other *(please specify)* [redacted]	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] See footnote 4 to Summary 1.A of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category of the sector Agriculture should indicate the amount [Gg] of these emissions or removals in the documentation box to Table 4.D. Additional information (activity data, implied emissions factors) should also be provided using the relevant documentation box to Table 4.D. This table is not modified for reporting the CO_2 emissions and removals for the sake of consistency with the IPCC tables (i.e. IPCC Sectoral Report for Agriculture).

Note: The IPCC Guidelines do not provide methodologies for the calculation of CH_4 emissions, CH_4 and N_2O removals from agricultural soils, or CO_2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates using the relevant documentation boxes of the Sectoral background data tables.

TABLE 4.A SECTORAL BACKGROUND DATA FOR AGRICULTURE
Enteric Fermentation
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA[1] AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTORS
	Population size [2] (1000 head)	Average daily feed intake (MJ/day)	CH_4 conversion (%)	CH_4 (kg CH_4/head/yr)
1. Cattle				0,00
Dairy Cattle[3]	623	264,7	6,00	104,00
Non-Dairy Cattle	1.284	96,0	6,00	37,00
2. Buffalo				0,00
3. Sheep	77			8,00
4. Goats				0,00
5. Camels and Llamas				0,00
6. Horses	152			18,00
7. Mules and Asses				0,00
8. Swine	10.110			1,50
9. Poultry				0,00
10. Other *(please specify)*				
				0,00

Additional information (for Tier 2)[a]

Disaggregated list of animals [b] / Indicators:		Dairy Cattle	Non-Dairy Cattle	Other *(specify)*	
Weight	(kg)	550,00	300,00		
Feeding situation [c]		90,00	70,00		
Milk yield	(kg/day)	19,10			
Work	(hrs/day)				
Pregnant	(%)	90,00			
Digestibility of feed	(%)	71,00	74,00		

[a] Compare to Tables A-1 and A-2 of the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.31-4.34). These data are relevant if Parties do not have data on average feed intake.

[b] Disaggregate to the split actually used. Add columns to the table if necessary.

[c] Specify feeding situation as pasture, stall fed, confined, open range, etc.

[1] In the documentation boxes to all Sectoral background data tables for Agriculture, Parties should provide information on whether the activity data is one year or a 3-year average.

[2] Parties are encouraged to provide detailed livestock population data by animal type and region in a separate table below the documentation box. This consistent set of animal population statistics should be used to estimate CH_4 emissions from enteric fermentation, CH_4 and N_2O from manure management, N_2O direct emissions from soil and N_2O emissions associated with manure production, as well as emissions from the use of manure as fuel, and sewage-related emissions reported in the waste sector.

[3] Including data on dairy heifers, if available.

Documentation box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark.
Emission factors are based on a Tier 2 approach for Cattle, Tier 1 for the other categories.
Average daily feed intake for Cattle is based on data for the year 1995.
Data for Non-Dairy Cattle is weigthed average data for calves, heifers, bulls and suckling cattle.
For animal categories 3, 6, 8 and 9 IPCC default values are used.
Feeding situation data is percentage of feeding in stable.

TABLE 4.B(a) SECTORAL BACKGROUND DATA FOR AGRICULTURE

CH_4 Emissions from Manure Management

(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS
	Population size [1]	Allocation by climate region [2]			Typical animal mass	VS[3] daily excretion	CH_4 producing potential (Bo)[3]	CH_4
		Cool	Temperate	Warm				
	(1000 head)	(%)			(kg)	(kg dm/head/yr)	(CH_4 m^3/kg VS)	(kg CH_4/head/yr)
1. Cattle								0,00
Dairy Cattle[4]	623	100,0			550,0	2.115,0	0,2	21,80
Non-Dairy Cattle	1.284	100,0			300,0	608,0	0,2	1,60
2. Buffalo								0,00
3. Sheep	77	100,0			70,0	400,0	0,2	0,46
4. Goats								0,00
5. Camels and Llamas								0,00
6. Horses	152	100,0			500,0	967,0	0,2	1,10
7. Mules and Asses								0,00
8. Swine	10.110	100,0			76,0	110,0	0,5	2,53
9. Poultry	20.218	100,0			2,0	9,0	0,5	0,03

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] Climate regions are defined in terms of annual average temperature as follows: Cool=less than 15°C; Temperate=15°C to 25°C inclusive; and Warm=greater than 25°C (see Table 4.2 of the IPCC Guidelines (Volume 3, Reference Manual, p. 4.8)).

[3] VS=Volatile Solids; Bo=maximum methane producing capacity for manure IIPCC Guidelines (Volume 3, Reference Manual, p.4.23 and p. 4.15.

[4] Including data on diary heifers, if available.

Documentation Box:

Activity data for population size is one year average data from Agriculture Statistics published by Statistics Denmark..
Emission factors are based on a Tier 2 approach.
For swine typical animal mass and allocation of animal waste management system is based on slaugther pigs.
Good Practice Guidance recommends MCF=39% for liquid systems. DK continues to use 10%
For further information refer to the NIR 2003

Additional information (for Tier 2)

Animal category[a]	Indicator	Climate region	Animal waste management system					
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range paddock	Other
Dairy Cattle	Allocation(%)	Cool	0,00	60,00	0,00	30,00	10,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Non-Dairy Cattle	Allocation(%)	Cool	0,00	38,00	0,00	28,00	34,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						
Swine	Allocation(%)	Cool	0,00	67,00	0,00	33,00	0,00	0,00
		Temperate						
		Warm						
	MCF[b]	Cool		10,00		1,00	1,00	
		Temperate						
		Warm						

[a] Copy the above table as many times as necessary.

[b] MCF = Methane Conversion Factor (IPCC Guidelines, (Volume 3. Reference Manual, p. 4.9)). In the case of use of other climate region categorization, please replace the entries in the cells with the climate regions for which the MCFs are specified.

TABLE 4.B(b) SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

N_2O Emissions from Manure Management

2001

(Sheet 1 of 1)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION								IMPLIED EMISSION FACTORS	
	Population size [1] (1000s)	Nitrogen excretion (kg N/head/yr)	Nitrogen excretion per animal waste management system (kg N/yr)						Emission factor per animal waste management system (kg N_2O-N/kg N)	
			Anaerobic lagoon	Liquid system	Daily spread	Solid storage and dry lot	Pasture range and paddock	Other		
Non-Dairy Cattle	623	22,1	0,0	10.024.106,2	0,0	16.713.706,6	14.606.726,1	0,0	Anaerobic lagoon	0,000
Dairy Cattle	1.284	125,3	0,0	57.143.777,1	0,0	9.252.004,1	11.716.902,6	0,0	Liquid system	0,001
Sheep	77	18,9	0,0	0	0,0	478107,025	1.266.983,6	0,0	Solid storage and dry lot	0,015
Swine	10.110	2,4	0,0	106.800.447,9	0,0	9.525.551,7	887.432,8	0,0	Other	0,000
Poultry	20.218	0,1	0,0	111.321,1	0,0	11.884.874,3	65.857,7	0,0		
Other *(please specify)*										
horses		43,3	0,0	0,0	0,0	3.280.732,5	3.280.732,5	0,0		
Fur farming		0,1	0,0	9.387.158,8	0,0	1.254.252,1	0,0	0,0		
Total per AWMS [2]			**0,0**	**183.466.811,1**	**0,0**	**52.389.228,3**	**31.824.635,3**	**0,0**		

[1] See footnote 1 to Table 4.A of this common reporting format.

[2] AWMS - Animal Waste Management System.

Documentation box:

For further information about nitrogen excretion refer to the NIR 2003.

TABLE 4.C SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Rice Cultivation

2001

(Sheet 1 of 1)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR (1)	EMISSIONS
		Harvested area (2) (10^{-9} m^2/yr)	Organic amendments added(3): type	(t/ha)	CH_4 (g/m^2)	CH_4 (Gg)
1. Irrigated						**0,00**
Continuously Flooded					0,00	
Intermittently Flooded	Single Aeration				0,00	
	Multiple Aeration				0,00	
2. Rainfed						**0,00**
Flood Prone					0,00	
Drought Prone					0,00	
3. Deep Water						**0,00**
Water Depth 50-100 cm					0,00	
Water Depth > 100 cm					0,00	
4. Other *(please specify)*						**0,00**
					0,00	
Upland Rice(4)						
Total (4)		0,00				

(1) The implied emission factor takes account of all relevant corrections for continuously flooded fields without organic amendment plus the correction for the organic amendments, if used, as well as of the effect of different soil characteristics, if taken into account, on methane emissions.

(2) Harvested area is the cultivated area multiplied by the number of cropping seasons per year.

(3) Specify dry weight or wet weight for organic amendments.

(4) These rows are included to allow comparison with the international statistics. Upland rice emissions are assumed to be zero and are ignored in the emission calculations.

Documentation box:

When dissagregating by more than one region within a country, provide additional information in the documentation box.
Where available, provide activity data and scaling factors by soil type and rice cultivar.

Rice is not grown in Denmark.

TABLE 4.D SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Agricultural Soils[(1)]

2001

(Sheet 1 of 1)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION		IMPLIED EMISSION FACTORS		EMISSIONS
	Description	Value	Unit		(Gg N_2O)
Direct Soil Emissions	**N input to soils (kg N/yr)**				**14,48**
Synthetic Fertilizers	Use of synthetic fertilizers (kg N/yr)	233.683.000	(kg N2O-N/kg N)[(2)]	0,012	4,40
Animal Wastes Applied to Soils	Nitrogen input from manure applied to soils (kg N/yr)	235.856.000	(kg N2O-N/kg N)[(2)]	0,009	3,32
N-fixing Crops	Dry pulses and soybeans produced (kg dry biomass/yr)	36.500.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	0,72
Crop Residue	Dry production of other crops (kg dry biomass/yr)	295.800.000	(kg N2O-N/kg dry biomass)[(2)]	0,013	5,81
Cultivation of Histosols	Area of cultivated organic soils (ha)	18.400	(kg N2O-N/ha)[(2)]	8,000	0,23
Animal Production	**N excretion on pasture range and paddock (kg N/yr)**	**31.825.000**	**(kg N2O-N/kg N)[(2)]**	**0,019**	**0,93**
Indirect Emissions					**8,56**
Atmospheric Deposition	Volatized N (NH_3 and NOx) from fertilizers and animal wastes (kg N/yr)	73.548.658	(kg N2O-N/kg N)[(2)]	0,010	1,16
Nitrogen Leaching and Run-off	N from fertilizers and animal wastes that is lost through leaching and run off (kg N/yr)	188.500.000	(kg N2O-N/kg N)[(2)]	0,025	7,41
Other *(please specify)*					**0,15**
Industrial waste used as fertilizer	(kg N/yr)	3.800.000	(kg N2O-N/kg N)[(2)]	0,013	0,07
Sewage sludge used as fertilizer	(kg N/yr)	3.600.000	(kg N2O-N/kg N)[(2)]	0,013	0,07
				0,000	

Additional information

Fraction [(a)]	Description	Value
$Frac_{BURN}$	Fraction of crop residue burned	NO
$Frac_{FUEL}$	Fraction of livestock N excretion in excrements burned for fuel	NO
$Frac_{GASF}$	Fraction of synthetic fertilizer N applied to soils that volatilizes as NH_3 and NOx	0,02
$Frac_{GASM}$	Fraction of livestock N excretion that volatilizes as NH_3 and NOx	0,28
$Frac_{GRAZ}$	Fraction of livestock N excreted and deposited onto soil during grazing	0,12
$Frac_{LEACH}$	Fraction of N input to soils that is lost through leaching and runoff	0,38
$Frac_{NCRBF}$	Fraction of N in non-N-fixing crop	
$Frac_{NCRO}$	Fraction of N in N-fixing crop	
$Frac_{R}$	Fraction or crop residue removed from the field as crop	

[(a)] Use the fractions as specified in the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.92 - 4.113).

[(1)] See footnote 4 to Summary 1.A. of this common reporting format. Parties which choose to report CO_2 emissions and removals from agricultural soils under 4.D. Agricultural Soils category should indicate the amount [Gg] of these emissions or removals and relevant additional information (activity data, implied emissions factors) in the documentation box.

[(2)] To convert from N_2O-N to N_2O emissions, multiply by 44/28.

Documentation box:

The fractions FracNCRBF, FracNCRO and FracR will be reported together with the emission inventory for year 2002.

TABLE 4.E SECTORAL BACKGROUND DATA FOR AGRICULTURE

Denmark

Prescribed Burning of Savannas

2001

(Sheet 1 of 1)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION					IMPLIED EMISSION FACTORS		EMISSIONS	
	Area of savanna burned (k ha/yr)	Average aboveground biomass density (t dm/ha)	Fraction of savanna burned	Biomass burned (Gg dm)	Nitrogen fraction in biomass	(kg/t dm)		(Gg)	
						CH_4	N_2O	CH_4	N_2O
(specify ecological zone)								0,00	0,00
						0,00	0,00		

Additional information

	Living	Dead
Fraction of aboveground biomass		
Fraction oxidized		
Carbon fraction		

Documentation box:

Does not occur in Denmark.

TABLE 4.F SECTORAL BACKGROUND DATA FOR AGRICULTURE
Field Burning of Agricultural Residues
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		EMISSIONS	
	Crop production (t)	Residue/ Crop ratio	Dry matter fraction	Fraction burned in fields	Biomass burned (Gg dm)	Nitrogen fraction in biomass of residues	CH_4 (kg/t dm)	N_2O (kg/t dm)	CH_4 (Gg)	N_2O (Gg)
1. Cereals									**0,00**	**0,00**
Wheat							0,00	0,00		
Barley							0,00	0,00		
Maize							0,00	0,00		
Oats							0,00	0,00		
Rye							0,00	0,00		
Rice							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
2. Pulse [1]									**0,00**	**0,00**
Dry bean							0,00	0,00		
Peas							0,00	0,00		
Soybeans							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
3 Tuber and Root									**0,00**	**0,00**
Potatoes							0,00	0,00		
Other *(please specify)*									0,00	0,00
							0,00	0,00		
4 Sugar Cane							**0,00**	**0,00**		
5 Other *(please specify)*									**0,00**	**0,00**
							0,00	0,00		

[1] To be used in Table 4.D of this common reporting format.

Documentation Box:
According to Danish law field burning of Agriculture Residues is forbidden since year 1990.

TABLE 5 SECTORAL REPORT FOR LAND-USE CHANGE AND FORESTRY
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions/ removals	CH_4	N_2O	NO_x	CO
	(Gg)						
Total Land-Use Change and Forestry	**0,00**	**-3.531,00**	**-3.531,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	**0,00**	**-3.531,00**	**-3.531,00**				
1. Tropical Forests			0,00				
2. Temperate Forests		-3.458,00	-3.458,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	-73,00	-73,00				
Harvested Wood [1]			0,00				
Afforestation since 1990		-73,00	-73,00				
B. Forest and Grassland Conversion [2]	**0,00**			**0,00**	**0,00**	**0,00**	**0,00**
1. Tropical Forests							
2. Temperate Forests							
3. Boreal Forests							
4. Grasslands/Tundra							
5. Other *(please specify)*	0,00			0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	**0,00**	**0,00**	**0,00**				
1. Tropical Forests			0,00				
2. Temperate Forests			0,00				
3. Boreal Forests			0,00				
4. Grasslands/Tundra			0,00				
5. Other *(please specify)*	0,00	0,00	0,00				
			0,00				
D. CO_2 Emissions and Removals from Soil	**0,00**	**0,00**	**0,00**				
Cultivation of Mineral Soils			0,00				
Cultivation of Organic Soils			0,00				
Liming of Agricultural Soils			0,00				
Forest Soils			0,00				
Other *(please specify)* [3]	0,00	0,00	0,00				
			0,00				
E. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
			0,00				

[1] Following the IPCC Guidelines, the harvested wood should be reported under Changes in Forest and Other Woody Biomass Stocks (Volume 3. Reference Manual, p.5.17).
[2] Include only the emissions of CO_2 from Forest and Grassland Conversion. Associated removals should be reported under section D.
[3] Include emissions from soils not reported under sections A, B and C.

Note: See footnote 4 to Summary 1.A of this common reporting format.

TABLE 5.A SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY
Changes in Forest and Other Woody Biomass Stocks
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES			ACTIVITY DATA		IMPLIED EMISSION FACTORS	ESTIMATES
			Area of forest/biomass stocks (kha)	Average annual growth rate (t dm/ha)	Implied carbon uptake factor (t C/ha)	Carbon uptake increment (Gg C)
Tropical	Plantations	*Acacia spp.*			0,00	
		Eucalyptus spp.			0,00	
		Tectona grandis			0,00	
		Pinus spp			0,00	
		Pinus caribaea			0,00	
		Mixed Hardwoods			0,00	
		Mixed Fast-Growing Hardwoods			0,00	
		Mixed Softwoods			0,00	
	Other Forests	Moist			0,00	
		Seasonal			0,00	
		Dry			0,00	
	Other *(specify)*				0,00	
					0,00	
Temperate	Plantations	Conifers (before 1990)	274,00	9,00	4,50	1.233,00
		Broadleaves (bef. 1990)	164,00	5.20	2,60	426,00
	Commercial	Evergreen			0,00	
		Deciduous			0,00	
	Other *(specify)*				0,00	
	Afforestation after 1990				0,00	20,00
Boreal					0,00	

	Number of trees (1000s of trees)	Annual growth rate (kt dm/1000 trees)	Carbon uptake factor (t C/tree)	Carbon uptake increment (Gg C)
Non-Forest Trees *(specify type)*				0,00
			0,00	
Total annual growth increment (Gg C)				1.679,00
Gg CO_2				6.156,33

	Amount of biomass removed (kt dm)	Carbon emission factor (t C/t dm)	Carbon release (Gg C)
Total biomass removed in Commercial Harvest	1.432,00	0,50	716,00
Traditional Fuelwood Consumed		0,00	
Total Other Wood Use		0,00	
Total Biomass Consumption from Stocks [1] (Gg C)			716,00
Other Changes in Carbon Stocks [2] (Gg C)			
Gg CO_2			2.625,33

Net annual carbon uptake (+) or release (-) (Gg C)	963,00
Net CO_2 emissions (-) or removals (+) (Gg CO_2)	3.531,00

[1] Make sure that the quantity of biomass burned off-site is subtracted from this total.
[2] The net annual carbon uptake/release is determined by comparing the annual biomass growth versus annual harvest, including the decay of forest products and slash left during harvest. The IPCC Guidelines recommend default assumption that all carbon removed in wood and other biomass from forests is oxidized in the year of removal. The emissions from decay could be included under Other Changes in Carbon Stocks.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:
The table accounts for carbon sequestration in forests planted before 1990 (i.e. no afforestation).
For further information on carbon sequestration in forests planted before 1990
and for information on carbon sequestration in afforested stands refer to NIR 2003.

TABLE 5.B SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Forest and Grassland Conversion

(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION							IMPLIED EMISSION FACTORS					EMISSIONS				
		On and off site burning				Decay of above-ground biomass[1]			Burning				Decay	Burning				Decay
									On site			Off site		On site			Off site	
		Area converted annually	Annual net loss of biomass	Quantity of biomass burned		Average area converted	Average annual net loss of biomass	Average quantity of biomass left to decay	CO_2	CH_4	N_2O	CO_2	CO_2	CO_2	CH_4	N_2O	CO_2	CO_2
				On site	Off site													
Vegetation types		(kha)	(kt dm)	(kt dm)	(kt dm)	(kha)	(t dm/ha)	(kt dm)	(t/ha)					(Gg)				
Tropical	Wet/Very Moist								0,00	0,00	0,00	0,00	0,00					
	Moist, short dry season								0,00	0,00	0,00	0,00	0,00					
	Moist, long dry season								0,00	0,00	0,00	0,00	0,00					
	Dry								0,00	0,00	0,00	0,00	0,00					
	Montane Moist								0,00	0,00	0,00	0,00	0,00					
	Montane Dry								0,00	0,00	0,00	0,00	0,00					
Tropical Savanna/Grasslands									0,00	0,00	0,00	0,00	0,00					
Temperate	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Broadleaf								0,00	0,00	0,00	0,00	0,00					
	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
Grasslands									0,00	0,00	0,00	0,00	0,00					
Boreal	Mixed Broadleaf/ Coniferous								0,00	0,00	0,00	0,00	0,00					
	Coniferous								0,00	0,00	0,00	0,00	0,00					
	Forest-tundra								0,00	0,00	0,00	0,00	0,00					
Grasslands/Tundra									0,00	0,00	0,00	0,00	0,00					
Other *(please specify)*									0,00	0,00	0,00	0,00	0,00					
									0,00	0,00	0,00	0,00	0,00					
Total														**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[1] Activity data are for default 10-year average. Specify the average decay time which is appropriate for the local conditions, if other than 10 years.

Emissions/Removals	On site	Off site
Immediate carbon release from burning	0,00	0,00
Total On site and Off site (Gg C)	0,00	
Delayed emissions from decay (Gg C)	0,00	
Total annual carbon release (Gg C)	0,00	
Total annual CO_2 emissions (Gg CO_2)	0,00	

Additional information

Fractions	On site	Off site
Fraction of biomass burned (average)		
Fraction which oxidizes during burning (average)		
Carbon fraction of aboveground biomass (average)		
Fraction left to decay (average)		
Nitrogen-carbon ratio		

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.C SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

Denmark

Abandonment of Managed Lands

2001

(Sheet 1 of 1)

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		ACTIVITY DATA AND OTHER RELATED INFORMATION						IMPLIED EMISSION FACTORS		ESTIMATES	
		Total area abandoned and regrowing [1]		Annual rate of aboveground biomass growth		Carbon fraction of aboveground biomass		Rate of aboveground biomass carbon uptake		Annual carbon uptake in aboveground biomass	
Original natural ecosystems		first 20 years (kha)	>20 years (kha)	first 20 years (t dm/ha)	>20 years (t dm/ha)	first 20 years	>20 years	first 20 years (t C/ha/yr)	>20 years (t C/ha/yr)	first 20 years (Gg C/yr)	>20 years (Gg C/yr)
Tropical	Wet/Very Moist							0,00	0,00		
	Moist, short dry season							0,00	0,00		
	Moist, long dry season							0,00	0,00		
	Dry							0,00	0,00		
	Montane Moist							0,00	0,00		
	Montane Dry							0,00	0,00		
Tropical Savanna/Grasslands								0,00	0,00		
Temperate	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Broadleaf							0,00	0,00		
Grasslands								0,00	0,00		
Boreal	Mixed Broadleaf/Coniferous							0,00	0,00		
	Coniferous							0,00	0,00		
	Forest-tundra							0,00	0,00		
Grasslands/Tundra								0,00	0,00		
Other *(please specify)*								0,00	0,00		
								0,00	0,00		

Total annual carbon uptake (Gg C)	0,00
Total annual CO_2 removal (Gg CO_2)	0,00

[1] If lands are regenerating to grassland, then the default assumption is that no significant changes in above-ground biomass occur.

Note: Sectoral background data tables on Land-use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation box:

TABLE 5.D SECTORAL BACKGROUND DATA FOR LAND-USE CHANGE AND FORESTRY

CO_2 Emissions and Removals from Soil

(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA	IMPLIED EMISSION FACTORS	ESTIMATES
	Land area (Mha)	Average annual rate of soil carbon uptake/removal (Mg C/ha/yr)	Net change in soil carbon in mineral soils (Tg C over 20 yr)
Cultivation of Mineral Soils [1]			**0,00**
High Activity Soils		0,00	
Low Activity Soils		0,00	
Sandy		0,00	
Volcanic		0,00	
Wetland (Aquic)		0,00	
Other *(please specify)*			0,00
		0,00	
	Land area (ha)	**Annual loss rate (Mg C/ha/yr)**	**Carbon emissions from organic soils (Mg C/yr)**
Cultivation of Organic Soils			**0,00**
Cool Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Warm Temperate			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
Tropical			**0,00**
Upland Crops		0,00	
Pasture/Forest		0,00	
	Total annual amount of lime (Mg)	**Carbon conversion factor**	**Carbon emissions from liming (Mg C)**
Liming of Agricultural Soils			**0,00**
Limestone $Ca(CO_3)$		0,00	
Dolomite $CaMg(CO_3)_2$		0,00	

Total annual net carbon emissions from agriculturally impacted soils (Gg C)	0,00
Total annual net CO_2 emissions from agriculturally impacted soils (Gg CO_2)	0,00

Additional information

	Climate [a]	land-use/ management system [a]	Soil type					
			High activity soils	Low activity soils	Sandy	Volcanic	Wetland (Aquic)	Organic soil
Year			percent distribution (%)					
20 years prior	*(e.g. tropical, dry)*	*(e.g. savanna)*						
		(e.g. irrigated cropping)						
inventory year								

[a] These should represent the major types of land management systems per climate regions presented in the country as well as ecosystem types which were either converted to agriculture (e.g., forest, savanna, grassland) or have been derived from previous agricultural land-use (e.g., abandoned lands, reforested lands). Systems should also reflect differences in soil carbon stocks that can be related to differences in management (IPCC Guidelines (Volume 2. Workbook, Table 5-9, p. 5.26, and Appendix (pp. 5-31 - 5.38)).

[1] The information to be reported under Culitvation of Mineral Soils aggregates data per soil type over all land-use/management systems. This refers to land area data and to the emission estimates and implied emissions factors accordingly.

Note: Sectoral background data tables on Land-Use Change and Forestry should be filled in only by Parties using the IPCC default methodology. Parties that use country specific methods and models should report information on them in a transparent manner, also providing suggestions for a possible sectoral background data table suitable for their calculation method.

Documentation Box:

TABLE 6 SECTORAL REPORT FOR WASTE
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2[(1)]	CH_4	N_2O	NO_x	CO	NMVOC	SO_2
	(Gg)						
Total Waste	**0,00**	**55,61**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	**0,00**	**55,61**		**0,00**	**0,00**	**0,00**	
1. Managed Waste Disposal on Land	NO	55,61		NO	NO	NO	
2. Unmanaged Waste Disposal Sites	0,00	0,00		NO	NO	NO	
3. Other *(please specify)*	0,00	0,00		0,00	0,00	0,00	
B. Wastewater Handling		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
1. Industrial Wastewater		0,00	NE	NO	NO	NO	
2. Domestic and Commercial Wastewater		0,00	0,00	NO	NO	NO	
3. Other *(please specify)*		0,00	0,00	0,00	0,00	0,00	
C. Waste Incineration	**0,00**	**0,00**	**0,00**	**IE**	**IE**	**IE**	**IE**
D. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

(1) Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biological or inorganic waste sources.

TABLE 6.A SECTORAL BACKGROUND DATA FOR WASTE
Solid Waste Disposal
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION				IMPLIED EMISSION FACTOR		EMISSIONS[1]	
	Annual MSW at the SWDS (Gg)	MCF	DOC degraded (Gg)	CH_4 recovery[2] (Gg)	CH_4 (t /t MSW)	CO_2 (t /t MSW)	CH_4 (Gg)	CO_2[3] (Gg)
1 Managed Waste Disposal on Land	1.300,00				0,04	#VALUE!	55,61	NO
2 Unmanaged Waste Disposal Sites					0,00	0,00	0,00	0,00
- deep (>5 m)	NO				0,00	0,00	NO	NO
- shallow (<5 m)	NO				0,00	0,00	NO	NO
3 Other *(please specify)*							0,00	0,00
					0,00	0,00		

Additional information

Description	Value
Total population (1000s)[a]	
Urban population (1000s)[a]	
Waste generation rate (kg/capita/day)	
Fraction of MSW disposed to SWDS	
Fraction of DOC in MSW	
Fraction of wastes incinerated	
Fraction of wastes recycled	
CH4 oxidation factor (b)	
CH_4 fraction in landfill gas	
Number of SWDS recovering CH_4	
CH_4 generation rate constant (k)[c]	
Time lag considered (yr)[c]	
Composition of landfilled waste (%)	
Paper and paperboard	
Food and garden waste	
Plastics	
Glass	
Textiles	
Other *(specify)*	
other - inert	
other - organic	

TABLE 6.C SECTORAL BACKGROUND DATA FOR WASTE
Waste Incineration
(Sheet 1 of 1)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA Amount of incinerated wastes (Gg)	IMPLIED EMISSION FACTOR			EMISSIONS		
		CO_2 (kg/t waste)	CH_4 (kg/t waste)	N_2O (kg/t waste)	CO_2[3] (Gg)	CH_4 (Gg)	N_2O (Gg)
Waste Incineration *(please specify)*	0,00				0,00	0,00	0,00
(biogenic)[3]		0,00	0,00	0,00			
(plastics and other non-biogenic waste)[3]		0,00	0,00	0,00	IE	IE	IE
		0,00	0,00	0,00			

MSW - Municipal Solid Waste, SWDS - Solid Waste Disposal Site, MCF - Methane Correction Factor, DOC - Degradable Organic Carbon (IPCC Guidelines (Volume 3. Reference Manual, section 6.2.4)). MSW includes household waste, yard/garden waste, commercial/market waste and organic industrial solid waste. MSW should not include inorganic industrial waste such as construction or demolition materials.

[1] Actual emissions (after recovery).

[2] CH_4 recovered and flared or utilized.

[3] Under Waste Disposal, CO_2 emissions should be reported only when the disposed wastes are combusted at the disposal site which might constitute a management practice. CO_2 emissions from non-biogenic wastes are included in the totals, while the CO_2 emissions from biogenic wastes are not included in the totals.

[a] Specify whether total or urban population is used and the rationale for doing so.

[b] See IPCC Guidelines (Volume 3. Reference Manual, p. 6.9).

[c] For Parties using Tier 2 methods.

Documentation box:
All relevant information used in calculation should be provided in the additional information box and in the documentation box.
Parties that use country specific models should note this with a brief rationale in the documentation box and fill the relevant cells only.

6. A 1. MSW according to Danish registration of Waste deposited (ISAG database). Emission is based on a model suited to the Danish conditions.
6. C. Emissions from waste inceneration plants are included in Table 1A.1a Public electricity and heat production

TABLE 6.B SECTORAL BACKGROUND DATA FOR WASTE
Wastewater Handling
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND RELATED INFORMATION[1]				IMPLIED EMISSION FACTOR			EMISSIONS[2]		
	Total organic product		CH_4 recovered and/or flared		CH_4		N_2O[3]	CH_4		N_2O[3]
	Wastewater	Sludge	Wastewater	Sludge	Wastewater	Sludge		Wastewater	Sludge	
	(Gg DC[1]/yr)		(Gg)		(kg/kg DC)		(kg/kg DC)	(Gg)		(Gg)
Industrial Wastewater	0,00				0,00	0,00		NE	NE	NE
Domestic and Commercial Wastewater	0,00				0,00	0,00		NE	NE	NE
Other *(please specify)*								0,00	0,00	0,00
					0,00	0,00				

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	ACTIVITY DATA AND OTHER RELATED INFORMATION			IMPLIED EMISSION FACTOR	EMISSIONS
	Population[4] (1000s)	Protein consumption (protein in kg/person/yr)	N fraction (kg N/kg protein)	N_2O (kg N_2O-N/kg sewage N produced)	N_2O (Gg)
N_2O from human sewage[3]				0,00	NE

[1] DC - degradable organic component. DC indicators are COD (Chemical Oxygen Demand) for industrial wastewater and BOD (Biochemical Oxygen Demand) for Domestic/Commercial wastewater/sludge (IPCC Guidelines (Volume 3. Reference Manual, pp. 6.14, 6.18)).

[2] Actual emissions (after recovery).

[3] Parties using other methods for estimation of N_2O emissions from human sewage or wastewater treatment should provide corresponding information on methods, activity data and emission factors used in the documentation box. Use the table to provide aggregate data.

[4] Specify whether total or urban population is used in the calculations and the rationale for doing so. Provide explanation in the documentation box.

Documentation box:

6 B. The Danish wastewater handling systems are considered to produce emissions of only minor and negligible importance.

Additional information

	Domestic	Industrial
Total wastewater (m^3):		
Treated wastewater (%):		

Wastewater streams:	Wastewater output (m^3)	DC ($kgCOD/m^3$)
Industrial wastewater		
Iron and steel		
Non-ferrous		
Fertilizers		
Food and beverage		
Paper and pulp		
Organic chemicals		
Other *(specify)*		
	DC (kg BOD/1000 person/yr)	
Domestic and Commercial		
Other		

Handling systems:	Industrial wastewater treated (%)	Ind. sludge treated (%)	Domestic wastewater treated (%)	Domestic sludge treated (%)
Aerobic				
Anaerobic				
Other *(specify)*				

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 1 of 3)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)				(Gg)					
Total National Emissions and Removals	**54.354,53**	**-3.531,00**	**266,98**	**28,22**	**1.138,48**	**647,32**	**26,19**	**22,13**	**0,00**	**0,00**	**201,96**	**587,37**	**123,50**	**25,35**
1. Energy	**52.778,58**		**38,42**	**2,68**							**201,55**	**587,37**	**83,83**	**25,35**
A. Fuel Combustion — Reference Approach[2]	51.999,11													
A. Fuel Combustion — Sectoral Approach[2]	52.145,26		31,42	2,67							198,21	561,70	77,04	24,62
1. Energy Industries	26.374,98		18,29	0,90							48,91	12,10	6,07	11,14
2. Manufacturing Industries and Construction	5.908,87		1,90	0,19							27,38	18,45	4,88	7,34
3. Transport	12.076,89		3,35	1,27							80,03	314,67	43,34	1,74
4. Other Sectors	7.687,64		7,88	0,31							41,29	216,18	22,68	4,40
5. Other	96,87		0,01	0,01							0,61	0,30	0,07	0,00
B. Fugitive Emissions from Fuels	633,32		7,00	0,01							3,33	25,68	6,79	0,72
1. Solid Fuels	0,00		3,28	0,00							0,00	23,51	0,00	0,00
2. Oil and Natural Gas	633,32		3,72	0,01							3,33	2,17	6,79	0,72
2. Industrial Processes	**1.464,20**		**0,00**	**0,00**	**1.138,48**	**647,32**	**26,19**	**22,13**	**0,00**	**0,00**	**0,41**	**0,00**	**0,45**	**0,00**
A. Mineral Products	1.464,20		0,00	0,00							0,00	0,00	0,00	0,00
B. Chemical Industry	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,41	0,00	0,00	0,00
C. Metal Production	0,00		0,00	0,00				0,00		0,00	0,00	0,00	0,00	0,00
D. Other Production[3]	0,00										0,00	0,00	0,45	0,00
E. Production of Halocarbons and SF_6						0,00		0,00		0,00				
F. Consumption of Halocarbons and SF_6					1.138,48	647,32	26,19	22,13	0,00	0,00				
G. Other	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach. Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] Other Production includes Pulp and Paper and Food and Drink Production.

Note: The numbering of footnotes to all tables containing more than one sheet continue to the next sheet. Common footnotes are given only once at the first point of reference.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 2 of 3)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs [1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
3. Solvent and Other Product Use	**111,75**			**0,00**									**38,01**	
4. Agriculture	**0,00**	**0,00**	**172,95**	**25,54**							0,00	0,00	1,21	0,00
A. Enteric Fermentation			130,83											
B. Manure Management			42,12	1,42									0,00	
C. Rice Cultivation			0,00										0,00	
D. Agricultural Soils	[4]	[4]	0,00	24,12									1,21	
E. Prescribed Burning of Savannas			0,00	0,00							0,00	0,00	0,00	
F. Field Burning of Agricultural Residues			0,00	0,00							0,00	0,00	0,00	
G. Other			0,00	0,00							0,00	0,00	0,00	
5. Land-Use Change and Forestry	[5] **0,00**	[5] **-3.531,00**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks	[5] 0,00	[5] -3.531,00												
B. Forest and Grassland Conversion	0,00		0,00	0,00							0,00	0,00		
C. Abandonment of Managed Lands	[5] 0,00	[5] 0,00												
D. CO_2 Emissions and Removals from Soil	[5] 0,00	[5] 0,00												
E. Other	[5] 0,00	[5] 0,00	0,00	0,00							0,00	0,00		
6. Waste	**0,00**		**55,61**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land	[6] 0,00		55,61									0,00	0,00	
B. Wastewater Handling			0,00	0,00							0,00	0,00	0,00	
C. Waste Incineration	[6] 0,00		0,00	0,00							IE	IE	IE	IE
D. Other	0,00		0,00	0,00							0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

[4] According to the IPCC Guidelines (Volume 3. Reference Manual, pp. 4.2, 4.87), CO_2 emissions from agricultural soils are to be included under Land-Use Change and Forestry (LUCF). At the same time, the Summary Report 7A (Volume 1. Reporting Instructions, Tables.27) allows for reporting CO_2 emissions or removals from agricultural soils, either in the Agriculture sector, under D. Agricultural Soils or in the Land-Use Change and Forestry sector under D. Emissions and Removals from Soil. Parties may choose either way to report emissions or removals from this source in the common reporting format, but the way they have chosen to report should be clearly indicated, by inserting explanatory comments to the corresponding cells of Summary 1.A and Summary 1.B. Double-counting of these emissions or removals should be avoided. Parties should include these emissions or removals consistently in Table8(a) (Recalculation - Recalculated data) and Table10 (Emission trends).

[5] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

[6] Note that CO_2 from Waste Disposal and Incineration source categories should only be included if it stems from non-biogenic or inorganic waste streams.

SUMMARY 1.A SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7A)
(Sheet 3 of 3)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs		PFCs		SF_6		NO_x	CO	NMVOC	SO_2
					P	A	P	A	P	A				
	(Gg)				CO_2 equivalent (Gg)						(Gg)			
Memo Items: [7]														
International Bunkers	**5.982,79**		**0,12**	**0,31**							**108,32**	**10,14**	**3,00**	**54,44**
Aviation	2.377,95		0,04	0,08							9,60	1,74	0,36	0,08
Marine	3.604,83		0,08	0,23							98,72	8,40	2,64	54,37
Multilateral Operations	**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass	**7.678,75**													

[7] Memo Items are not included in the national totals.

SUMMARY 1.B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 7B)
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2 emissions	CO_2 removals	CH_4	N_2O	HFCs[1]		PFCs[1]		SF_6		NO_x	CO	NMVOC	SO_2
						P	A	P	A	P	A				
		(Gg)				CO_2 equivalent (Gg)						(Gg)			
Total National Emissions and Removals		**54.354,53**	**-3.531,00**	**266,98**	**28,22**	**1.138,48**	**647,32**	**26,19**	**22,13**	**0,00**	**0,00**	**201,96**	**587,37**	**123,50**	**25,35**
1. Energy		**52.778,58**		**38,42**	**2,68**							**201,55**	**587,37**	**83,83**	**25,35**
A. Fuel Combustion	Reference Approach[2]	51.999,11													
	Sectoral Approach[2]	52.145,26		31,42	2,67							198,21	561,70	77,04	24,62
B. Fugitive Emissions from Fuels		633,32		7,00	0,01							3,33	25,68	6,79	0,72
2. Industrial Processes		**1.464,20**		**0,00**	**0,00**	**1.138,48**	**647,32**	**26,19**	**22,13**	**0,00**	**0,00**	**0,41**	**0,00**	**0,45**	**0,00**
3. Solvent and Other Product Use		**111,75**			**0,00**							**0,00**	**0,00**	**38,01**	**0,00**
4. Agriculture [3]		**0,00**	**0,00**	**172,95**	**25,54**							**0,00**	**0,00**	**1,21**	**0,00**
5. Land-Use Change and Forestry		[4] **0,00**	[4] **-3.531,00**	**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
6. Waste		**0,00**		**55,61**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
7. Other		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:															
International Bunkers		**5.982,79**		**0,12**	**0,31**							**108,32**	**10,14**	**3,00**	**54,44**
Aviation		2.377,95		0,04	0,08							9,60	1,74	0,36	0,08
Marine		3.604,83		0,08	0,23							98,72	8,40	2,64	54,37
Multilateral Operations		**0,00**		**0,00**	**0,00**							**0,00**	**0,00**	**0,00**	**0,00**
CO_2 Emissions from Biomass		**7.678,75**													

P = Potential emissions based on Tier 1 approach of the IPCC Guidelines.

A = Actual emissions based on Tier 2 approach of the IPCC Guidelines.

[1] The emissions of HFCs and PFCs are to be expressed as CO_2 equivalent emissions. Data on disaggregated emissions of HFCs and PFCs are to be provided in Table 2(II) of this common reporting format.

[2] For verification purposes, countries are asked to report the results of their calculations using the Reference approach and to explain any differences with the Sectoral approach in document box of Table1.A(c). Where possible, the calculations using the Sectoral approach should be used for estimating national totals. Do not include the results of both the Reference approach and the Sectoral approach in national totals.

[3] See footnote 4 to Summary 1.A.

[4] Please do not provide an estimate of both CO_2 emissions and CO_2 removals. "Net" emissions (emissions - removals) of CO_2 should be estimated and a single number placed in either the CO_2 emissions or CO_2 removals column, as appropriate. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

SUMMARY 2 SUMMARY REPORT FOR CO_2 EQUIVALENT EMISSIONS
(Sheet 1 of 1)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [(1)]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [(1)]	**50.823,53**	**5.606,48**	**8.749,33**	**647,32**	**22,13**	**30,43**	**65.879,20**
1. Energy	**52.778,58**	**806,77**	**830,85**				**54.416,20**
A. Fuel Combustion (Sectoral Approach)	52.145,26	659,81	827,42				53.632,49
1. Energy Industries	26.374,98	384,08	279,83				27.038,90
2. Manufacturing Industries and Construction	5.908,87	39,83	57,50				6.006,19
3. Transport	12.076,89	70,25	393,12				12.540,26
4. Other Sectors	7.687,64	165,53	95,40				7.948,58
5. Other	96,87	0,12	1,57				98,56
B. Fugitive Emissions from Fuels	633,32	146,96	3,43				783,71
1. Solid Fuels	0,00	68,86	0,00				68,86
2. Oil and Natural Gas	633,32	78,09	3,43				714,85
2. Industrial Processes	**1.464,20**	**0,00**	**0,00**	**647,32**	**22,13**	**30,43**	**2.164,07**
A. Mineral Products	1.464,20	0,00	0,00				1.464,20
B. Chemical Industry	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production	0,00	0,00	0,00		0,00	0,00	0,00
D. Other Production	0,00						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				647,32	22,13	30,43	699,87
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**111,75**		**0,00**				**111,75**
4. Agriculture	**0,00**	**3.631,88**	**7.918,48**				**11.550,36**
A. Enteric Fermentation		2.747,40					2.747,40
B. Manure Management		884,48	441,51				1.326,00
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[(2)]		0,00	7.476,96				7.476,96
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[(1)]	**-3.531,00**	**0,00**	**0,00**				**-3.531,00**
6. Waste	**0,00**	**1.167,82**	**0,00**				1.167,82
A. Solid Waste Disposal on Land	0,00	1.167,82					1.167,82
B. Wastewater Handling		0,00	0,00				0,00
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**5.982,79**	**2,50**	**95,86**				**6.081,15**
Aviation	2.377,95	0,79	25,32				2.404,06
Marine	3.604,83	1,72	70,54				3.677,09
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**7.678,75**						**7.678,75**

[(1)] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
[(2)] See footnote 4 to Summary 1.A of this common reporting format.

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.531,00	-3.531,00			-3.531,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	0,00	0,00	0,00			0,00
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	0,00	-3.531,00	-3.531,00	0,00	0,00	-3.531,00

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [(a)]	69.410,20
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [(a)]	65.879,20

[(a)] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 1 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
1. Energy												
A. Fuel Combustion	C	CS	C	CS/C	C	C						
1. Energy Industries	C	CS	C	CS/C	C	C						
2. Manufacturing Industries and Construction	C	CS	C	CS/C	C	C						
3. Transport	M/C	CS	M/C	M/C	M/C	M/C						
4. Other Sectors	C	CS	C	CS/C	C	C						
5. Other												
B. Fugitive Emissions from Fuels												
1. Solid Fuels	NO		D	D	NO							
2. Oil and Natural Gas	C	C	C	C	C	C						
2. Industrial Processes												
A. Mineral Products	CS	CS	NO		NO							
B. Chemical Industry												
C. Metal Production												
D. Other Production												
E. Production of Halocarbons and SF_6							NO		NO		NO	
F. Consumption of Halocarbons and SF_6							M/CS	CS	M/CS	CS	M/CS	CS
G. Other												

[1] Use the following notation keys to specify the method applied: D (IPCC default), RA (Reference Approach), T1 (IPCC Tier 1), T1a, T1b, T1c (IPCC Tier 1a, Tier 1b and Tier 1c, respectively), T2 (IPCC Tier 2), T3 (IPCC Tier 3), C (CORINAIR), CS (Country Specific), M (Model). If using more than one method, enumerate the relevant methods. Explanations of any modifications to the default IPCC methods, as well as information on the proper use of methods per source category where more than one method is indicated, and explanations on the country specific methods, should be provided in the documentation box of the relevant Sectoral background data table.

[2] Use the following notation keys to specify the emission factor used: D (IPCC default), C (CORINAIR), CS (Country Specific), PS (Plant Specific), M (Model). Where a mix of emission factors has been used, use different notations in one and the same cells with further explanation in the documentation box of the relevant Sectoral background data table.

SUMMARY 3 SUMMARY REPORT FOR METHODS AND EMISSION FACTORS USED
(Sheet 2 of 2)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6	
	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]	Method applied [1]	Emission factor [2]
3. Solvent and Other Product Use												
4. Agriculture												
A. Enteric Fermentation			T1/T2	CS								
B. Manure Management			T2	CS								
C. Rice Cultivation			NO									
D. Agricultural Soils	NE		NE		CS/M	CS/M						
E. Prescribed Burning of Savannas			NO									
F. Field Burning of Agricultural Residues			NO		NO							
G. Other												
5. Land-Use Change and Forestry												
A. Changes in Forest and Other Woody Biomass Stocks	CS/M	CS/M										
B. Forest and Grassland Conversion												
C. Abandonment of Managed Lands												
D. CO_2 Emissions and Removals from Soil												
E. Other												
6. Waste												
A. Solid Waste Disposal on Land	NO		CS/M	CS/M								
B. Wastewater Handling			NE		NE							
C. Waste Incineration	IE		IE		IE							
D. Other												
7. Other *(please specify)*												

TABLE 7 OVERVIEW TABLE[(1)] FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 1 of 3)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
Total National Emissions and Removals																				
1 Energy																				
A. Fuel Combustion Activities																				
Reference Approach	ALL	H																		
Sectoral Approach	ALL																			
1. Energy Industries	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
2. Manufacturing Industries and Construction	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
3. Transport	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
4. Other Sectors	ALL	H	ALL	M	ALL	L							ALL	H	ALL	H	ALL	M	ALL	H
5. Other																				
B. Fugitive Emissions from Fuels																				
1. Solid Fuels	NO		ALL	L																
2. Oil and Natural Gas	ALL	L	ALL	L																
2 Industrial Processes																				
A. Mineral Products	ALL	M																		
B. Chemical Industry																				
C. Metal Production																				
D. Other Production																				
E. Production of Halocarbons and SF_6							NO		NO		NO									

[(1)] This table is intended to be used by Parties to summarize their own assessment of completeness (e.g. partial, full estimate, not estimated) and quality (high, medium, low) of major source/sink inventory estimates. The latter could be understood as a quality assessment of the uncertainty of the estimates. This table might change once the IPCC completes its work on managing uncertainties of GHG inventories. The title of the table was kept for consistency with the current table in the IPCC Guidelines.

Note: To fill in the table use the notation key as given in the IPCC Guidelines (Volume 1. Reporting Instructions, Tables. 37).

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 2 of 3)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
2 Industrial Processes (continued)																				
F. Consumption of Halocarbons and SF_6																				
Potential [2]							ALL	M	ALL	M	ALL	M								
Actual [3]							ALL	M	ALL	M	ALL	M								
G. Other																				
3 Solvent and Other Product Use																				
4 Agriculture																				
A. Enteric Fermentation			ALL	H																
B. Manure Management			ALL	M	ALL	M											NE			
C. Rice Cultivation			NO														NO			
D. Agricultural Soils	NE		NE		ALL	M											ALL	L		
E. Prescribed Burning of Savannas			NO		NO								NO		NO		NO		NO	
F. Field Burning of Agricultural Residues			NO		NO								NO		NO		NO		NO	
G. Other																				
5 Land-Use Change and Forestry																				
A. Changes in Forest and Other Woody Biomass Stocks	ALL	M																		
B. Forest and Grassland Conversion																				

[2] Potential emissions based on Tier 1 approach of the IPCC Guidelines.
[3] Actual emissions based on Tier 2 approach of the IPCC Guidelines.

TABLE 7 OVERVIEW TABLE FOR NATIONAL GREENHOUSE GAS INVENTORIES (IPCC TABLE 8A)
(Sheet 3 of 3)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2		CH_4		N_2O		HFCs		PFCs		SF_6		NO_x		CO		NMVOC		SO_2	
	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality	Estimate	Quality
5 Land-Use Change and Forestry (continued)																				
C. Abandonment of Managed Lands																				
D. CO_2 Emissions and Removals from Soil																				
E. Other																				
6 Waste																				
A. Solid Waste Disposal on Land			ALL	M											NO		NO			
B. Wastewater Handling			NE		NE								NE		NE		NE			
C. Waste Incineration			IE										IE		IE		IE			
D. Other																				
7 Other *(please specify)*																				
Memo Items:																				
International Bunkers																				
Aviation	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Marine	ALL	H	ALL	L	ALL	L							ALL	H	ALL	H	ALL	H	ALL	H
Multilateral Operations																				
CO_2 Emissions from Biomass																				

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year:

(Sheet 1 of 2)

Denmark

2001

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total National Emissions and Removals				**0,00**			**0,00**			**0,00**
1. Energy				**0,00**			**0,00**			**0,00**
1.A.	Fuel Combustion Activities			0,00			0,00			0,00
1.A.1.	Energy Industries			0,00			0,00			0,00
1.A.2.	Manufacturing Industries and Construction			0,00			0,00			0,00
1.A.3.	Transport			0,00			0,00			0,00
1.A.4.	Other Sectors			0,00			0,00			0,00
1.A.5.	Other			0,00			0,00			0,00
1.B.	Fugitive Emissions from Fuels			0,00			0,00			0,00
1.B.1.	Solid fuel			0,00			0,00			0,00
1.B.2.	Oil and Natural Gas			0,00			0,00			0,00
2. Industrial Processes				**0,00**			**0,00**			**0,00**
2.A.	Mineral Products			0,00			0,00			0,00
2.B.	Chemical Industry			0,00			0,00			0,00
2.C.	Metal Production			0,00			0,00			0,00
2.D.	Other Production			0,00						
2.G.	Other			0,00			0,00			0,00
3. Solvent and Other Product Use				**0,00**						**0,00**
4. Agriculture				**0,00**			**0,00**			**0,00**
4.A.	Enteric Fermentation						0,00			
4.B.	Manure Management						0,00			0,00
4.C.	Rice Cultivation						0,00			
4.D.	Agricultural Soils [2]			0,00			0,00			0,00
4.E.	Prescribed Burning of Savannas						0,00			0,00
4.F.	Field Burning of Agricultural Residues						0,00			0,00
4.G.	Other						0,00			0,00
5. Land-Use Change and Forestry (net)				**0,00**			**0,00**			**0,00**
5.A.	Changes in Forest and Other Woody Biomass Stocks			0,00						
5.B.	Forest and Grassland Conversion			0,00			0,00			0,00
5.C.	Abandonment of Managed Lands			0,00						
5.D.	CO_2 Emissions and Removals from Soil			0,00						
5.E.	Other			0,00			0,00			0,00

[1] Estimate the percentage change due to recalculation with respect to the previous submission (Percentage change = 100% x [(LS-PS)/PS], where LS = Latest submission and PS = Previous submission.
All cases of recalculation of the estimate of the source/sink category, should be addressed and explained in Table 8(b) of this common reporting format.

[2] See footnote 4 to Summary 1.A of this common reporting format.

TABLE 8(a) RECALCULATION - RECALCULATED DATA

Recalculated year: 0

(Sheet 2 of 2)

Denmark

2001

2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO_2			CH_4			N_2O		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
6. Waste				**0,00**			**0,00**			**0,00**
6.A.	Solid Waste Disposal on Land			0,00			0,00			
6.B.	Wastewater Handling						0,00			0,00
6.C.	Waste Incineration			0,00			0,00			0,00
6.D.	Other			0,00			0,00			0,00
7. Other ***(please specify)***				**0,00**			**0,00**			**0,00**
				0,00			0,00			0,00
Memo Items:										
International Bunkers				**0,00**			**0,00**			**0,00**
Multilateral Operations				**0,00**			**0,00**			**0,00**
CO_2 Emissions from Biomass				**0,00**						

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		HFCs			PFCs			SF_6		
		Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]	Previous submission	Latest submission	Difference[1]
		CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)	CO_2 equivalent (Gg)		(%)
Total Actual Emissions				**0,00**			**0,00**			**0,00**
2.C.3.	Aluminium Production						0,00			0,00
2.E.	Production of Halocarbons and SF_6			0,00			0,00			0,00
2.F.	Consumption of Halocarbons and SF_6			0,00			0,00			0,00
	Other			0,00			0,00			0,00
Potential Emissions from Consumption of HFCs/PFCs and SF_6										

	Previous submission	Latest submission	Difference[1]
	CO_2 equivalent (Gg)		(%)
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry[3]			0,00
Total CO_2 Equivalent Emissions without Land-Use Change and Forestry[3]			0,00

[3] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report emissions and removals from Land-Use Change and Forestry.

TABLE 8(b) RECALCULATION - EXPLANATORY INFORMATION
(Sheet 1 of 1)

Denmark
2001
2003, May 7

Specify the sector and source/sink category[1] where changes in estimates have occurred:		GHG	RECALCULATION DUE TO			
			CHANGES IN:			Addition/removal/ replacement of source/sink categories
			Methods [2]	Emission factors [2]	Activity data [2]	

[1] Enter the identification code of the source/sink category (e.g. 1.B.1) in the first column and the name of the category (e.g. Fugitive Emissions from Solid Fuels) in the second column of the table (see Table 8(a)) .

[2] Explain changes in methods, emission factors and activity data that have resulted in recalculation of the estimate of the source/sink as indicated in Table 8(a). Include relevant changes in the assumptions and coefficients under the "Methods" column.

Documentation box: Use the documentation box to report the justifications of the changes as to improvements in the accuracy, completeness and consistency of the inventory.

TABLE 9 COMPLETENESS
(Sheet 1 of 2)

Denmark
2001
2003, May 7

Sources and sinks not reported (NE)[1]			
GHG	**Sector[2]**	**Source/sink category [2]**	**Explanation**
CO_2	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
CH_4	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
N_2O	Waste	Wastewater handling	Wastewater handling systems are considered to produce only negligible emissions.
HFCs			
PFCs			
SF_6			

Sources and sinks reported elsewhere (IE)[3]				
GHG	**Source/sink category**	**Allocation as per IPCC Guidelines**	**Allocation used by the Party**	**Explanation**
CO_2	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
CH_4	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
N_2O	Waste Incineration non biogenic	6.C	1.A1a	Waste Incineration plants are used for energy and heat production and are included in energy statistics
	1A2, Energy, Fuel combustion, Manufacturing industries and construction	1A2a-e	1A2f	Danish energy statistics states energy consumption of manufacturing industry as a whole. Thus all energy consumption of 1A2 is included in 1A2f.
HFCs				
PFCs				
SF_6				

[1] Please, clearly indicate sources and sinks which are considered in the IPCC Guidelines but are not considered in the submitted inventory. Explain the reason for excluding these sources and sinks, in order to avoid arbitrary interpretations. An entry should be made for each source/sink category for which the indicator "NE" is entered in the sectoral tables.

[2] Indicate omitted source/sink following the IPCC source/sink category structure (e.g. sector: Waste, source category: Wastewater Handling).

[3] Please clearly indicate sources and sinks in the submitted inventory that are allocated to a sector other than that indicated by the IPCC Guidelines. Show the sector indicated in the IPCC Guidelines and the sector to which the source or sink is allocated in the submitted inventory. Explain the reason for reporting these sources and sinks in a different sector. An entry should be made for each source/sink for which the indicator "IE" is used in the sectoral tables.

TABLE 9 COMPLETENESS
(Sheet 2 of 2)

Denmark
2001
2003, May 7

Additional GHG emissions reported[4]						
GHG	**Source category**	**Emissions (Gg)**	**Estimated GWP value (100-year horizon)**	**Emissions CO_2 equivalent (Gg)**	**Reference to the data source of GWP value**	**Explanation**

[4] Parties are encouraged to provide information on emissions of greenhouse gases whose GWP values have not yet been agreed upon by the COP. Please include such gases in this table if they are considered in the submitted inventory. Provide additional information on the estimation methods used.

TABLE 10 EMISSIONS TRENDS (CO_2)
(Sheet 1 of 5)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(Gg)												
1. Energy	**0,00**	**51.529,55**	**62.082,45**	**56.141,54**	**58.491,69**	**62.482,05**	**59.701,10**	**73.050,93**	**63.554,72**	**58.499,71**	**55.764,37**	**51.199,07**	**52.778,58**
A. Fuel Combustion (Sectoral Approach)	0,00	51.289,54	61.587,86	55.630,76	58.046,79	62.014,45	59.335,85	72.650,55	62.989,71	58.077,45	54.861,63	50.605,87	52.145,26
1. Energy Industries		26.202,33	35.155,19	30.126,95	31.688,59	35.388,19	32.093,13	44.412,23	35.433,35	31.504,33	28.249,93	25.120,95	26.374,98
2. Manufacturing Industries and Construction		5.605,10	6.011,90	5.872,64	5.803,92	6.300,25	6.705,17	6.888,29	6.763,47	6.081,49	6.128,61	5.823,11	5.908,87
3. Transport		10.404,27	10.896,40	11.020,82	11.202,18	11.642,31	11.774,94	11.975,95	12.102,15	12.125,12	12.182,19	12.046,29	12.076,89
4. Other Sectors		8.958,84	9.237,68	8.469,57	9.114,97	8.432,17	8.510,72	9.198,17	8.519,92	8.162,49	8.118,55	7.504,99	7.687,64
5. Other		119,01	286,69	140,79	237,13	251,52	251,89	175,92	170,83	204,03	182,35	110,53	96,87
B. Fugitive Emissions from Fuels	0,00	240,00	494,59	510,78	444,90	467,60	365,25	400,38	565,01	422,25	902,74	593,20	633,32
1. Solid Fuels		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2. Oil and Natural Gas		240,00	494,59	510,78	444,90	467,60	365,25	400,38	565,01	422,25	902,74	593,20	633,32
2. Industrial Processes	**0,00**	**1.005,50**	**1.178,08**	**1.300,49**	**1.310,99**	**1.317,77**	**1.311,00**	**1.388,14**	**1.539,32**	**1.436,25**	**1.401,62**	**1.453,00**	**1.464,20**
A. Mineral Products		1.005,50	1.178,08	1.300,49	1.310,99	1.317,77	1.311,00	1.388,14	1.539,32	1.436,25	1.401,62	1.453,00	1.464,20
B. Chemical Industry		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. Other Production		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
E. Production of Halocarbons and SF_6													
F. Consumption of Halocarbons and SF_6													
G. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use		**123,58**	**122,40**	**121,22**	**125,49**	**118,87**	**117,67**	**116,48**	**115,30**	**114,11**	**113,24**	**111,75**	**111,75**
4. Agriculture	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Enteric Fermentation													
B. Manure Management													
C. Rice Cultivation													
D. Agricultural Soils [2]		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
E. Prescribed Burning of Savannas													
F. Field Burning of Agricultural Residues													
G. Other													
5. Land-Use Change and Forestry [3]	**0,00**	**-3.118,00**	**-3.119,00**	**-3.121,00**	**-3.123,00**	**-3.126,00**	**-3.128,00**	**-3.134,00**	**-3.142,00**	**-3.152,00**	**-3.161,00**	**-3.517,00**	**-3.531,00**
A. Changes in Forest and Other Woody Biomass Stocks		-3.118,00	-3.119,00	-3.121,00	-3.123,00	-3.126,00	-3.128,00	-3.134,00	-3.142,00	-3.152,00	-3.161,00	-3.517,00	-3.531,00
B. Forest and Grassland Conversion													
C. Abandonment of Managed Lands		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. CO_2 Emissions and Removals from Soil		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
E. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6. Waste	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land													
B. Waste-water Handling													
C. Waste Incineration													
D. Other													
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Total Emissions/Removals with LUCF [4]	**0,00**	**49.540,63**	**60.263,93**	**54.442,25**	**56.805,16**	**60.792,69**	**58.001,77**	**71.421,54**	**62.067,34**	**56.898,07**	**54.118,23**	**49.246,82**	**50.823,53**
Total Emissions without LUCF[4]	**0,00**	**52.658,63**	**63.382,93**	**57.563,25**	**59.928,16**	**63.918,69**	**61.129,77**	**74.555,54**	**65.209,34**	**60.050,07**	**57.279,23**	**52.763,82**	**54.354,53**
Memo Items:													
International Bunkers	**0,00**	**4.857,41**	**4.406,62**	**4.590,04**	**5.972,81**	**6.664,35**	**6.940,00**	**6.790,13**	**6.428,78**	**6.587,36**	**6.456,90**	**6.629,46**	**5.982,79**
Aviation		1.762,34	1.634,90	1.694,63	1.660,36	1.818,72	1.867,44	1.970,16	2.009,67	2.158,38	2.290,47	2.348,44	2.377,95
Marine		3.095,07	2.771,72	2.895,41	4.312,45	4.845,63	5.072,56	4.819,97	4.419,11	4.428,98	4.166,42	4.281,01	3.604,83
Multilateral Operations		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
CO_2 Emissions from Biomass		4.611,45	5.012,71	5.319,17	5.566,90	5.678,74	6.014,23	6.448,51	6.617,41	6.335,78	6.351,58	7.000,55	7.678,75

(1) Fill in the base year adopted by the Party under the Convention, if different from 1990.
(2) See footnote 4 to Summary 1.A of this common reporting format.
(3) Take the net emissions as reported in Summary 1.A of this common reporting format. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).
(4) The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO_2 emissions and removals from Land-Use Change and Forestry.

TABLE 10 EMISSIONS TRENDS (CH_4)
(Sheet 2 of 5)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(Gg)												
Total Emissions	**0,00**	**270,11**	**272,76**	**273,07**	**278,96**	**280,07**	**283,71**	**287,13**	**281,90**	**276,26**	**260,62**	**263,57**	**266,98**
1. Energy	**0,00**	**13,01**	**15,43**	**15,79**	**17,46**	**25,33**	**31,64**	**36,44**	**38,59**	**35,27**	**37,40**	**36,32**	**38,42**
A. Fuel Combustion (Sectoral Approach)	0,00	8,58	9,68	10,27	11,15	16,60	22,11	27,06	28,54	28,77	29,61	29,76	31,42
1. Energy Industries		1,19	1,70	2,13	2,61	6,21	10,94	14,65	15,54	18,74	17,36	16,85	18,29
2. Manufacturing Industries and Construction		0,83	0,87	0,87	0,89	1,28	1,42	1,67	1,74	1,30	1,64	1,82	1,90
3. Transport		2,71	2,98	3,11	3,37	3,53	3,69	3,95	3,79	3,62	3,99	3,39	3,35
4. Other Sectors		3,85	4,11	4,16	4,26	5,57	6,04	6,77	7,46	5,10	6,61	7,70	7,88
5. Other		0,01	0,02	0,01	0,01	0,01	0,02	0,01	0,01	0,01	0,01	0,01	0,01
B. Fugitive Emissions from Fuels	0,00	4,43	5,75	5,52	6,32	8,73	9,53	9,38	10,05	6,50	7,79	6,57	7,00
1. Solid Fuels		3,45	3,97	3,91	4,79	5,61	6,30	6,36	6,53	3,47	3,37	3,04	3,28
2. Oil and Natural Gas		0,98	1,78	1,61	1,52	3,12	3,23	3,02	3,52	3,03	4,42	3,53	3,72
2. Industrial Processes	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
B. Chemical Industry		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. Other Production													
E. Production of Halocarbons and SF_6													
F. Consumption of Halocarbons and SF_6													
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use													
4. Agriculture	**0,00**	**194,70**	**193,63**	**192,49**	**196,79**	**189,25**	**189,37**	**188,59**	**184,20**	**185,59**	**170,38**	**170,25**	**172,95**
A. Enteric Fermentation		151,84	150,52	148,34	150,20	144,83	144,76	144,61	139,90	140,03	129,89	129,27	130,83
B. Manure Management		42,86	43,10	44,14	46,59	44,41	44,61	43,98	44,30	45,57	40,48	40,99	42,12
C. Rice Cultivation		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. Agricultural Soils		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
E. Prescribed Burning of Savannas		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F. Field Burning of Agricultural Residues		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
G. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks													
B. Forest and Grassland Conversion		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands													
D. CO_2 Emissions and Removals from Soil													
E. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6. Waste	**0,00**	**62,40**	**63,70**	**64,80**	**64,70**	**65,50**	**62,70**	**62,10**	**59,10**	**55,40**	**52,84**	**57,00**	**55,61**
A. Solid Waste Disposal on Land		62,40	63,70	64,80	64,70	65,50	62,70	62,10	59,10	55,40	52,84	57,00	55,61
B. Waste-water Handling		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Waste Incineration		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:													
International Bunkers	**0,00**	**0,10**	**0,09**	**0,09**	**0,12**	**0,14**	**0,15**	**0,14**	**0,13**	**0,14**	**0,13**	**0,14**	**0,12**
Aviation		0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,03	0,04	0,04	0,04	0,04
Marine		0,07	0,06	0,07	0,10	0,11	0,11	0,11	0,10	0,10	0,09	0,10	0,08
Multilateral Operations		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
CO_2 Emissions from Biomass													

TABLE 10 EMISSIONS TRENDS (N_2O)
(Sheet 3 of 5)

Denmark
2001
2003, May 7

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(Gg)												
Total Emissions	**0,00**	**34,98**	**34,63**	**32,48**	**32,88**	**32,18**	**31,95**	**31,48**	**30,14**	**30,26**	**30,05**	**29,32**	**28,22**
1. Energy	**0,00**	**1,88**	**2,28**	**2,16**	**2,28**	**2,50**	**2,48**	**2,96**	**2,77**	**2,64**	**2,61**	**2,57**	**2,68**
A. Fuel Combustion (Sectoral Approach)	0,00	1,88	2,27	2,15	2,27	2,49	2,48	2,95	2,76	2,63	2,60	2,56	2,67
1. Energy Industries		0,89	1,17	1,02	1,07	1,18	1,08	1,45	1,17	1,03	0,95	0,85	0,90
2. Manufacturing Industries and Construction		0,17	0,18	0,18	0,18	0,19	0,20	0,21	0,20	0,18	0,19	0,18	0,19
3. Transport		0,47	0,55	0,61	0,67	0,79	0,87	0,94	1,05	1,12	1,16	1,22	1,27
4. Other Sectors		0,34	0,35	0,33	0,34	0,32	0,32	0,34	0,32	0,31	0,29	0,30	0,31
5. Other		0,00	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,00	0,01
B. Fugitive Emissions from Fuels	0,00	0,00	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,02	0,01	0,01
1. Solid Fuels		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2. Oil and Natural Gas		0,00	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,02	0,01	0,01
2. Industrial Processes	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Mineral Products		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
B. Chemical Industry		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Metal Production		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. Other Production													
E. Production of Halocarbons and SF_6													
F. Consumption of Halocarbons and SF_6													
G. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
4. Agriculture	**0,00**	**33,09**	**32,35**	**30,32**	**30,60**	**29,68**	**29,46**	**28,52**	**27,37**	**27,62**	**27,44**	**26,75**	**25,54**
A. Enteric Fermentation													
B. Manure Management		1,49	1,51	1,55	1,60	1,60	1,57	1,57	1,45	1,50	1,47	1,42	1,42
C. Rice Cultivation													
D. Agricultural Soils		31,60	30,84	28,77	29,00	28,08	27,89	26,95	25,92	26,12	25,96	25,33	24,12
E. Prescribed Burning of Savannas		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
F. Field Burning of Agricultural Residues		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
G. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
5. Land-Use Change and Forestry	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Changes in Forest and Other Woody Biomass Stocks													
B. Forest and Grassland Conversion		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands													
D. CO_2 Emissions and Removals from Soil													
E. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
6. Waste	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
A. Solid Waste Disposal on Land													
B. Waste-water Handling		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C. Waste Incineration		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
D. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
Memo Items:													
International Bunkers	**0,00**	**0,25**	**0,23**	**0,24**	**0,33**	**0,37**	**0,38**	**0,37**	**0,35**	**0,35**	**0,34**	**0,35**	**0,31**
Aviation		0,06	0,06	0,06	0,06	0,06	0,06	0,07	0,07	0,08	0,08	0,08	0,08
Marine		0,19	0,17	0,18	0,27	0,30	0,32	0,30	0,28	0,28	0,26	0,27	0,23
Multilateral Operations		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
CO_2 Emissions from Biomass													

TABLE 10 EMISSION TRENDS (HFCs, PFCs and SF_6)
(Sheet 4 of 5)

Denmark
2001
2003, May

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	(Gg)												
Emissions of HFCs[5] - CO_2 equivalent (Gg)	**0,00**	**0,00**	**0,00**	**3,64**	**95,66**	**141,01**	**235,83**	**370,80**	**392,15**	**489,42**	**597,90**	**705,02**	**647,32**
HFC-23		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-32		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,01
HFC-41		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-43-10mee		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-125		0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,02	0,03	0,04	0,05	0,05
HFC-134		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-134a		0,00	0,00	0,00	0,07	0,10	0,15	0,21	0,19	0,23	0,26	0,28	0,27
HFC-152a		0,00	0,00	0,00	0,03	0,05	0,04	0,03	0,02	0,01	0,04	0,02	0,01
HFC-143		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-143a		0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,02	0,03	0,04	0,05	0,04
HFC-227ea		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-236fa		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
HFC-245ca		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Emissions of PFCs[5] - CO_2 equivalent (Gg)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,13**	**0,95**	**2,93**	**7,23**	**15,03**	**19,84**	**28,30**	**22,13**
CF_4		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C_2F_6		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C_3F_8		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C_4F_{10}		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
c-C_4F_8		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C_5F_{12}		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
C_6F_{14}		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Emissions of SF_6[5] - CO_2 equivalent (Gg)	**0,00**	**43,02**	**62,07**	**89,15**	**134,60**	**122,06**	**107,36**	**60,99**	**73,09**	**59,46**	**65,39**	**59,25**	**30,43**
SF_6		0,00	0,00	0,00	0,01	0,01	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[5] Enter information on the actual emissions. Where estimates are only available for the potential emissions, specify this in a comment to the corresponding cell. Only in this row the emissions are expressed as CO_2 equivalent emissions in order to facilitate data flow among spreadsheets.

TABLE 10 EMISSION TRENDS (SUMMARY)
(Sheet 5 of 5)

Denmark
2001
2003, May 7

GREENHOUSE GAS EMISSIONS	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	CO_2 equivalent (Gg)												
Net CO_2 emissions/removals	0,00	49.540,63	60.263,93	54.442,25	56.805,16	60.792,69	58.001,77	71.421,54	62.067,34	56.898,07	54.118,23	49.246,82	50.823,53
CO_2 emissions (without LUCF) [6]	0,00	52.658,63	63.382,93	57.563,25	59.928,16	63.918,69	61.129,77	74.555,54	65.209,34	60.050,07	57.279,23	52.763,82	54.354,53
CH_4	0,00	5.672,33	5.728,02	5.734,57	5.858,06	5.881,51	5.957,84	6.029,80	5.919,81	5.801,51	5.473,04	5.535,07	5.606,48
N_2O	0,00	10.842,62	10.736,77	10.068,02	10.192,67	9.975,90	9.903,43	9.758,26	9.343,08	9.381,82	9.314,38	9.089,58	8.749,33
HFCs	0,00	0,00	0,00	3,64	95,66	141,01	235,83	370,80	392,15	489,42	597,90	705,02	647,32
PFCs	0,00	0,00	0,00	0,00	0,00	0,13	0,95	2,93	7,23	15,03	19,84	28,30	22,13
SF_6	0,00	43,02	62,07	89,15	134,60	122,06	107,36	60,99	73,09	59,46	65,39	59,25	30,43
Total (with net CO_2 emissions/removals)	**0,00**	**66.098,59**	**76.790,78**	**70.337,63**	**73.086,16**	**76.913,31**	**74.207,17**	**87.644,33**	**77.802,70**	**72.645,31**	**69.588,76**	**64.664,04**	**65.879,20**
Total (without CO_2 from LUCF) [6]	**0,00**	**69.216,59**	**79.909,78**	**73.458,63**	**76.209,16**	**80.039,31**	**77.335,17**	**90.778,33**	**80.944,70**	**75.797,31**	**72.749,76**	**68.181,04**	**69.410,20**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year[1]	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	CO_2 equivalent (Gg)												
1. Energy	0,00	52.386,02	63.113,35	57.142,15	59.566,06	63.789,59	61.135,01	74.732,35	65.222,47	60.059,38	57.359,26	52.758,47	54.416,20
2. Industrial Processes	0,00	1.048,52	1.240,15	1.393,28	1.541,25	1.580,97	1.655,14	1.822,87	2.011,79	2.000,16	2.084,74	2.245,57	2.164,07
3. Solvent and Other Product Use	0,00	123,58	122,40	121,22	125,49	118,87	117,67	116,48	115,30	114,11	113,24	111,75	111,75
4. Agriculture	0,00	14.348,07	14.096,18	13.441,19	13.617,66	13.174,37	13.110,66	12.802,53	12.354,04	12.460,25	12.082,83	11.868,25	11.550,36
5. Land-Use Change and Forestry [7]	0,00	-3.118,00	-3.119,00	-3.121,00	-3.123,00	-3.126,00	-3.128,00	-3.134,00	-3.142,00	-3.152,00	-3.161,00	-3.517,00	-3.531,00
6. Waste	0,00	1.310,40	1.337,70	1.360,80	1.358,70	1.375,50	1.316,70	1.304,10	1.241,10	1.163,42	1.109,70	1.197,00	1.167,82
7. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

[6] The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO_2 emissions and removals from Land-Use Change and Forestry.

[7] Net emissions.

TABLE 11 CHECK LIST OF REPORTED INVENTORY INFORMATION[1]

Party: Denmark **Year:** 2001

Contact info:	Focal point for national GHG inventories:	Jytte Boll Illerup, Danish National Environmental Research Institute		
	Address:	P.O. Box 358, Department of Policy Analysis, DK-4000 Roskilde		
	Telephone:	+ 45 46 30 12 89	Fax: + 45 46 30 12 12	E-mail: jbi@dmu.dk
	Main institution preparing the inventory:	Danish National Environmental Research Institute, Ministry of the Environment		

General info:	Date of submission:	May 7, 2003		
	Base years:	1990	PFCs, HFCs, SF_6:	1995
	Year covered in the submission:	1990-2001		
	Gases covered:	CO2, CH4, N2O, NOx, CO, NMVOC, SO2, HFCs, PFCs, SF6		
	Omissions in geographic coverage:			

		Energy	Ind. Processes	Solvent Use	LUCF	Agriculture	Waste
Tables:	Sectoral report tables:	☑	☑	☑	☑	☑	☐
	Sectoral background data tables:	☑	☑	☐	☐	☑	☐
	Summary 1 (IPCC Summary tables):	IPCC Table 7A:		☑	IPCC Table 7B:		☐
	Summary 2 (CO_2 equivalent emissions):			☑			
	Summary 3 (Methods/Emission factors):			☐			
	Uncertainty:	IPCC Table 8A:		☐	National information:		☐
	Recalculation tables:			☐			
	Completeness table:			☐			
	Trend table:			☑			

CO_2	Comparison of CO_2 from fuel combustion:	Worksheet 1-1	Percentage of difference	Explanation of differences
		☐	0,94	☐

		Energy	Ind.Processes	Solvent Use	LUCF	Agriculture	Waste
Recalculation:	CO_2	☐	☐	☐	☐	☐	☐
	CH_4	☐	☐	☐	☐	☐	☐
	N_2O	☐	☐	☐	☐	☐	☐
	HFCs, PFCs, SF_6		☐				
	Explanations:	☐	☐	☐	☐	☐	☐
	Recalculation tables for all recalculated years:			☐			
	Full CRF for the recalculated base year:			☐			

		HFCs		PFCs		SF_6	
HFCs, PFCs, SF_6:	Disaggregation by species:	☐		☐			
	Production of Halocarbons/SF_6:	☐		☐		☐	
	Consumption of Halocarbons/SF_6:	Actual	Potential	Actual	Potential	Actual	Potential
		☐	☐	☐	☐	☐	☐
	Potential/Actual emission ratio:	0,00		0,00		0,00	

Reference to National Inventory Report and/or national inventory web site:	

CRF - Common Reporting Format.
LUCF - Land-Use Change and Forestry.

[1] For each omission, give an explanation for the reasons by inserting a comment to the corresponding cell.

Appendix 1.2

Total emissions for Denmark, Greenland and the Faroe Islands

Appendix 1.2. Total emissions for Denmark, Greenland and the Faroe Islands (CO2 equivalent (Gg))

Denmark 2001
15-apr-03

GREENHOUSE GAS EMISSIONS	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	CO_2 equivalent (Gg)											
Net CO_2 emissions/removals	50.873,09	61.554,69	55.686,81	57.341,14	61.830,00	59.066,03	72.563,17	63.201,40	58.064,01	55.347,85	50.605,30	52.231,53
CH_4	5.690,24	5.746,60	5.753,06	5.876,45	5.900,53	5.976,93	6.048,79	5.939,45	5.820,57	5.492,37	5.555,22	5.626,90
N_2O	10.865,40	10.760,93	10.092,33	10.215,22	10.000,40	9.928,38	9.783,25	9.369,83	9.407,55	9.341,32	9.119,52	8.780,67
HFCs	0,00	0,00	3,64	95,66	141,01	235,83	370,80	392,15	489,42	597,90	705,02	647,32
PFCs	0,00	0,00	0,00	0,00	0,13	0,95	2,93	7,23	15,03	19,84	28,30	22,13
SF_6	43,02	62,07	89,15	134,60	122,06	107,36	60,99	73,09	59,46	65,39	59,25	30,43
Total (with net CO_2 emissions/removals)	**67.471,75**	**78.124,29**	**71.625,00**	**73.663,07**	**77.994,13**	**75.315,47**	**88.829,94**	**78.983,15**	**73.856,05**	**70.864,66**	**66.072,60**	**67.338,97**

Appendix 2

Emissions trends 1990-2001 adjusted for electricity exchange and inter-annual temperature variations

Appendix 2

EMISSION TRENDS (SUMMARY)
with adjustments for electricity exchange and inter-annual temperature variations

Denmark
1990-2001
2003, Apr 15

CO2 Adjustments		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
		CO2 (Gg)											
Sum of adjustment for (1) electricity exchange (net import) (2) inter-annual temperature variations		8.178,61	-1.008,59	4.110,16	856,55	-3.075,94	-454,64	-14.606,82	-5.576,37	-3.248,20	-975,44	2.001,59	-82,01

GREENHOUSE GAS EMISSIONS with CO2 adjustments applied	Base year(1	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
		CO2 equivalent (Gg)											
Net CO2 emissions/removals		57.719,24	59.255,34	58.552,41	57.661,72	57.716,75	57.547,13	56.814,72	56.490,97	53.649,87	53.142,79	51.248,41	50.741,52
CO2 emissions (without LUCF) (6)		60.837,24	62.374,34	61.673,41	60.784,72	60.842,75	60.675,13	59.948,72	59.632,97	56.801,87	56.303,79	54.765,41	54.272,52
CH4		5.672,33	5.728,02	5.734,57	5.858,06	5.881,51	5.957,84	6.029,80	5.919,81	5.801,51	5.473,04	5.535,07	5.606,48
N2O		10.842,62	10.736,77	10.068,02	10.192,67	9.975,90	9.903,43	9.758,26	9.343,08	9.381,82	9.314,38	9.089,58	8.749,33
HFCs		0,00	0,00	3,64	95,66	141,01	235,83	370,80	392,15	489,42	597,90	705,02	647,32
PFCs		0,00	0,00	0,00	0,00	0,13	0,95	2,93	7,23	15,03	19,84	28,30	22,13
SF6		43,02	62,07	89,15	134,60	122,06	107,36	60,99	73,09	59,46	65,39	59,25	30,43
Total (with net CO2 emissions/removals)		**74.277,20**	**75.782,19**	**74.447,79**	**73.942,71**	**73.837,36**	**73.752,53**	**73.037,51**	**72.226,33**	**69.397,12**	**68.613,32**	**66.665,63**	**65.797,20**
Total (without CO2 from LUCF) (6)		**77.395,20**	**78.901,19**	**77.568,79**	**77.065,71**	**76.963,36**	**76.880,53**	**76.171,51**	**75.368,33**	**72.549,12**	**71.774,32**	**70.182,63**	**69.328,20**

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year(1	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
		CO2 equivalent (Gg)											
1. Energy with adjustments applied		60.564,63	62.104,76	61.252,31	60.422,62	60.713,65	60.680,37	60.125,53	59.646,10	56.811,18	56.383,82	54.760,07	54.334,19
2. Industrial Processes		1.048,52	1.240,15	1.393,28	1.541,25	1.580,97	1.655,14	1.822,87	2.011,79	2.000,16	2.084,74	2.245,57	2.164,07
3. Solvent and Other Product Use		123,58	122,40	121,22	125,49	118,87	117,67	116,48	115,30	114,11	113,24	111,75	111,75
4. Agriculture		14.348,07	14.096,18	13.441,19	13.617,66	13.174,37	13.110,66	12.802,53	12.354,04	12.460,25	12.082,83	11.868,25	11.550,36
5. Land-Use Change and Forestry (7)		-3.118,00	-3.119,00	-3.121,00	-3.123,00	-3.126,00	-3.128,00	-3.134,00	-3.142,00	-3.152,00	-3.161,00	-3.517,00	-3.531,00
6. Waste		1.310,40	1.337,70	1.360,80	1.358,70	1.375,50	1.316,70	1.304,10	1.241,10	1.163,42	1.109,70	1.197,00	1.167,82
7. Other		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

(6) The information in these rows is requested to facilitate comparison of data, since Parties differ in the way they report CO2 emissions and removals from Land-Use Change and Forestry.

(7) Net emissions.

Appendix 3

CO_2 emissions in Greenland and the Faroe Islands

15 April 2003

Appendix 3 CO_2 emissions in Greenland and the Faroe Islands

In the Faroe Islands a major work has been done in 2002 to produce a revised and more comprehensive greenhouse gas inventory as required by the IPCC guidelines (Lastein et al., 2003). For Greenland only totals for CO_2 emissions from fossil fuels are reported. Though fossil fuels are expected to be the most important sources of greenhouse gases in Greenland. Figures for CO_2 emissions from 1990 to 2001 are given in the table below.

The significant increase in CO_2 emissions from 1998 to 2001 is mainly due to more fuel use in the fishery, public electricity and manufacturing industry sectors, while the CH_4 and N_2O emission increases are due to rising activity in the agricultural sector.

The possibilities for corresponding improvement in statistics and greenhouse gas inventories in both Greenland and the Faroe Islands will be investigated.

	Greenland	**Faroe Islands**		
	Gg CO_2	**Gg CO_2**	**Mg CH_4**	**Mg N_2O**
1990	624	709	853	73
1991	609	682	885	78
1992	594	650	881	78
1993	0	536	875	73
1994	494	544	906	79
1995	523	541	909	81
1996	564	578	904	81
1997	575	559	935	86
1998	550	616	908	83
1999	585	645	920	87
2000	659	699	959	97
2001	617	791	973	101

Preliminary estimation of CO_2 emissions in Greenland and the Faroe Islands 1990 -2001.

References

Lastein, L., Winther, M. (2003): Emissions of greenhouse gases and long-range transboundary air pollutants on the Faroe Islands 1990-2001. National Environmental Research Institute, Denmark. NERI Technical Report (to be published).

Appendix 4

Stationary Combustion plants

15 April 2003

Appendix 4 Stationary Combustion plants

1A1 Energy industries, 1A2 Manufacturing industries and 1A4 Other sectors

Stationary combustion plants are part of the CRF emission sources *1A1 Energy industries*, *1A2 Manufacturing industries* and *1A4 Other sectors*.

Methodology and references

The Danish emission inventory is based on the CORINAIR (CORe INventory on AIR emissions) system, which is a European program for air emission inventories. CORINAIR includes methodology structure and software for inventories. The methodology is described in the Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP Task Force on Emissions Inventories and Projections. Emission data are stored in an Access database, and data transferred to the CRF format.

The inventory of emissions from combustion processes in the CRF sources *1A1 Energy industries*, *1A2 Manufacturing industries* and *1A4 Other sectors* is based on activity rates from the Danish energy statistics. Emission factors for different fuels, plants and sectors have been determined. Some large plants like e.g. power plants are registered individually as large point sources and emission data from the actual plants are used.

SNAP / IPCC source categories

In the Danish emission database all activity rates and emissions are defined in SNAP sector categories (Selected Nomenclature for Air Pollution). 11 main categories are defined; categories that are further divided into a second and third level of snap. The CRF sources (IPCC source categories) *1A1*, *1A2* and *1A4* are included in SNAP 01, 02, 03 and 08.

SNAP 01 includes power plants, district-heating plants, petroleum refining plants and oil/gas extraction. SNAP 02 includes commercial and institutional plants, residential plants and plants in agriculture, forestry and aquaculture. SNAP 03 includes industrial combustion in boilers, gas turbines and stationary engines and industrial combustion in processes. SNAP 08 includes amongst others mobile sources in households & gardening, in agriculture, in forestry, in industry and in national fishing. Mobile sources are not further discussed in this Appendix, please refer to Appendix 6.

Emission inventories are prepared from a complete emission database based on the SNAP categories. Aggregation to IPCC source categories in the CRF format is based on a correspondence list between SNAP and IPCC96 source categories which is included in the UNECE/EMEP Emission Inventory Guidebook. An emission source correspondence list of CRF sources *1A1*, *1A2* and *1A4* is shown in Appendix 4.5.

In Denmark all municipal waste incineration is utilised for heat and power production. Thus incineration of waste is included in CRF categories *1A1*, *1A2* and *1A4*.

Large point sources

Large point sources like power plants, industrial plants and refineries are included as point sources in the Danish emission database. Each point source might consist of more than one part e.g. a power plant with several units.

By registering the plants as point sources in the database it is possible to use plant specific emission factors for the plants. Plant specific emission data are obtained from:

- Annual environmental reports
- Annual plant specific reporting of SO_2 and NO_x from power plants >25MW_e prepared for the Danish Energy Authority due to Danish legislation /3/

Annual environmental reports from the plants include a considerable number of emission data sets. In general emission data from annual environmental reports are based on emission measurements, but some emissions might have been calculated from general emission factors. Only some of the pollutants included in the UNFCCC inventory is reported in the annual environmental reports or in other plant specific reports. Emission of the remaining pollutants is based on general emission factors for the fuel and source category. CO_2, CH_4 and N_2O from large point sources included in CRF *1A1*, *1A2* and *1A4* are all based on the general emission factors.

In the year 2001 63 large point sources within CRF source category *1A1*, *1A2* and *1A4* are specified in the Danish emission database. These point sources includes:

- Power plants and cogeneration plants (combined heat and power plants)
- Municipal waste incineration plants
- A few large industrial plants
- Petroleum refining plants

The fuel consumption of large point sources in *1A1*, *1A2* and *1A4* is 320 PJ (2001). This corresponds to 53% of the overall fuel consumption of *1A1*, *1A2* and *1A4*.

A list of large point sources 2001 and the fuel consumption rates is shown in appendix 4.2. A table showing which large point source emissions are based on plant specific emission factors is also included in the appendix. The number of large point sources registered in the databases has been increasing from 1990 till 2001.

Area sources

Fuels not combusted in large point sources are included as sector specific area sources in the emission database. Plants like residential boilers, small district heating plants, small cogeneration plants and industrial plants are defined as area sources. Emissions from area sources are based on fuel consumption data and emission factors. Further information about emission factors is given below.

Activity rates, fuel consumption

The fuel consumption rates are based on the official Danish energy statistics prepared by the Danish Energy Agency. The Danish Energy Agency aggregates fuel consumption rates to SNAP categories. Some fuel categories of the official Danish energy statistics are added to obtain a less detailed fuel aggregation level.

The Danish energy statistics does not specify fuel consumption rates in specific industries. Thus all fuel consumption of *1A2 Manufacturing industries and construction* is included in *1A2f Other*.

Traded and not traded fuels are included in the Danish energy statistics. Thus e.g. an estimation of the annual consumption of not traded wood is included.

Emissions from petroleum coke bought abroad and combusted in Danish residential plants (border trade of 251 TJ) are included in the inventory.

The fuel consumption of district heating and power producing plants are each year reported by the plant owners to the Danish Energy Agency. The fuel consumption of large point sources specified in the Danish emission databases refers to a plant specific database from the Danish Energy Agency The fuel consumption of area sources is calculated as total fuel consumption minus fuel consumption of large point sources.

Emissions from non-energy use of fuels are not yet included in the Danish national approach, but have been included in the reference approach.

Fuel rates of CRF sources *1A1*, *1A2* and *1A4* is shown in Appendix 4.3.

Emission factors

For each fuel and SNAP (sector and e.g. type of plant) a set of general emission factors has been determined. The emission factors are either national referenced or based on the EMEP / CorinAir Guidebook. Emission factors for area sources year 2001 are shown in Appendix 4.1. Time series of greenhouse gas emission factors are also shown.

Most country specific emission factors refers to:

- Danish legislation
- Danish research reports
- Calculations based on plant specific emissions from a considerable number of power plants
- Calculations based on plant specific emissions from a considerable number of municipal waste incineration plants

References of each area source emission factor are shown in Appendix 4.1. Note that SO_2 and NO_x emissions from large point sources are often based on emission measurements and thus they are plant specific. Some CO and NMVOC emissions are also plant specific. If emissions are not stated in annual environmental reports or other plant specific reports the general area source emission factor is used.

CO_2 emission factors for fuels are shown in Table 1.

Table 1 Emission factors 2001, CO_2

Fuel	Biomass	Emission factor	Unit	Reference type 1)
Coal		95	kg/GJ	cs
Petroleum coke		92	kg/GJ	cs
Wood	x	102	kg/GJ	c
Municipal waste (biomass part)	x	97,8	kg/GJ	cs
Municipal waste (plastic part)		19,2	kg/GJ	cs
Agricultural waste (straw)	x	102	kg/GJ	cs
Residual oil		78	kg/GJ	c
Gas oil		74	kg/GJ	c
Kerosene		72	kg/GJ	c
Liquid bio fuel	x	102	kg/GJ	c
Orimulsion		80	kg/GJ	cs
Natural gas		57,25	kg/GJ	cs
LPG		52	kg/GJ	c
Refinery gas		57,1	kg/GJ	cs
Biogas	x	83,6	kg/GJ	cs

1) CS: country specific, C: CORINAIR

Some of the indicated emission factors (IEF) in *Table 1A(a)* of the CRF differ from IEF reported by other countries:

- Indicated emission factors for NMVOC and CH_4 of gaseous fuels in CRF *Table 1A(a)* are above the general level. This is due to the considerable number gas fuelled lean burn engines installed in cogeneration plants. The emission of unburned hydrocarbon from lean burn gas engines is much higher than from boilers or gas turbines. The emission factors are documented in several Danish reports including /4/. There has been a rapid increase in number and gas consumption rate of these plants, thus resulting in a considerable increase of IEF since 1990.
- IEF of CH_4 and NMVOC of biomass are relatively high in Denmark duel to a considerable number of biogas fuelled lean burn gas engines in cogeneration plants.

CO_2 from the plastic part of municipal waste

The CO_2 emission from the plastic part of municipal waste incineration is included in the Danish national approach. The CO_2 emission from incineration of municipal waste is split in two parts: The emission from combustion of the plastic content of the waste and the emission from combustion of the rest of the waste - the biomass part. The CO_2 emission from the plastic part is included in the fuel category *Other fuels* with a fuel consumption rate of zero. Thus the CO_2 emission from the plastic part of incinerated waste (*Table 1A(a), Other fuels, 1A1a, 1A2f and 1A4a*) occurs without at corresponding fuel consumption. The CO_2 emission from the non-plastic part is included in the fuel category *Biomass* applying the total consumption rate of municipal waste. Calculation of the two CO_2 emission factors for municipal waste is based on knowledge of plastic content of waste and the lower heating value of plastic (assumed to be the same as for crude oil) and biomass waste part respectively. Calculations are shown in Appendix 4.4.

Other pollutants from municipal waste incineration are all included in fuel category biomass.

Reference approach

In addition to the detailed emission calculation in the national approach CO_2 emission from fuel combustion is aggregated using the reference approach. Data used in the reference approach originate from the annual "basicdata" table prepared by the Danish Energy Authority and published on their home page. Some fuel categories have been aggregated to follow fuel categories in the CRF *Table1A(b)*.

The fraction of carbon oxidised has been assumed to be 1,00. The carbon emission factor originates from the IPCC Reference Manual /8/.

In CRF *Table 1A(c)* the CO_2 emission calculated in the national approach is compared with the CO_2 emission calculated in the reference approach. To make results comparable:

- CO_2 emission from the plastic part of municipal waste incineration is added in Reference Approach. (*Other fuels* of sources *1A1*, *1A2* and *1A4*).
- Non-energy use of fuels is not included in the Danish National Approach. Thus consumption for non-energy (10,63 PJ) is subtracted in Reference Approach to make results comparable. Inclusion of non-energy use of fuels in the national approach will be considered in future inventories.

In 2001 fuel consumption rates of the two approaches differ 1,19% and the CO_2 emission differ 0,94%. In 1990-2001 the fuel consumption difference is within 1,91% and the CO_2 emission difference is within 1,69%.

Recalculation and changes

Emission factors for CH_4, N_2O, CO and NMVOC, 1990-2000

Emission factors for CH_4, N_2O, CO and NMVOC have been revised. Some emission factors have been changed and now refer to the EMEP Guidebook or to Danish references. Consistency of factors has been improved. References of the emission factors have been included in the 2001 emission database.

Correction of errors

Some corrections of emission factor errors (1990-2000) have been carried out since last year. The corrections are registered in a (manual) log table in the emission database. The errors however have not influenced the total emission considerably.

CO_2 emission from incineration of municipal waste

Up to now the emission from the plastic part of the waste have been included in the fuel category *Liquid fuels* in CRF. Now this emission is included in the fuel category *Other fuels*. This change of aggregation does not change the total emission reported but improves comparability of IEFs to IEFs of inventories from other countries.

The CO_2 emission from non-plastic part of waste is includes in the fuel category *Biomass* as in the former inventories.

In former inventories the energy content of municipal waste have been counted twice in the *National approach*. The energy content was included both as *Biomass* and as *Liquid fuel*. Now the energy content is included only as *Biomass*. Thus the CO_2 emission from the plastic part of incinerated waste (*Other fuels*) occurs without at corresponding energy consumption.

Table 1A(a)s1-4:
The change of aggregation cause considerable changes of *Table 1A(a)s1-4*. The total CO_2 emission is unchanged but a considerable part of the emission is now included in fuel category *Other fuels* instead of *Liquid fuels*. Energy consumption, CO_2 emission and IEF change in the sources *1A1*, *1A2* and *1A4*. The CO_2 IEFs of *Liquid fuel* are now comparable to those of other countries.

Table 1A(c):
In the *National approach* energy consumption and CO_2 emission of *Liquid fuels* is lower than in former inventories. Emission from *Other fuels* is not included in *Table 1A(c)*. Thus it is not necessary to make the correction in *Table 1A(c)* that was made last year.

Reference approach
The reference approach has been recalculated in 2003. Some specific fuels have been moved to other fuel categories in *Table 1A(b)* as a result of comments in the review last year. The recalculation is based on a revised energy statistics.

Uncertainty

Estimation of uncertainty is based on the Tier 1 methodology in IPCC Good Practice Guidance (GPG) /2/.

The uncertainty of greenhouse gas emissions and the uncertainty of total Global Warming Potential (GWP) is shown in Table 2. The uncertainty of Global Warming Potential is estimated to be 11% and the uncertainty in trend of GWP is 1,8%.

Main sources of uncertainty of GWP are N_2O emission and CO_2 emission from coal combustion. Main sources of trend uncertainty of GWP are CO_2 emission from natural gas consumption and CO_2 emission from coal combustion. The uncertainties of these sources should be further analysed to improve uncertainty estimates in the future.

Table 2 Uncertainty of greenhouse gases

Pollutant	Uncertainty of emission inventory [%]	Uncertainty of emission trend [%]
CO_2	2,6	1,8
CH_4	39	389
N_2O	1000	3,1
GWP	**11**	**1,8**

CO_2:
The source categories follow the suggested aggregation of key source analyses /2/, and thus CO_2 emissions from stationary combustion plants are disaggregated only to fuel level.

The activity rate uncertainties refers to Table 2.6 in GPG. The fuel consumption rates of the different sectors are considered and the uncertainties of fuel rates determined - see appendix 2.6. Uncertainties of CO_2 emission factors for fuels are assumed to be less than 5% referring to GPG page 2.15. Uncertainty of emission factors for coal (5%), orimulsion (2%), fuel oil (2%) and natural gas (1%) is based on a Danish research report /6/.

Overall uncertainty of the Danish CO_2 emission from stationary combustion plants year 2001 is 2,6% and the trend uncertainty is 1,8%. Calculation sheet is shown in appendix 4.6.

CH_4:
Two emission sources are considered in the CH_4 uncertainty analysis: Gas engines and other stationary combustion plants. This aggregation level differs from the key source analysis. This aggregation is preferred due to the much higher emission factor for gas engines and due to the fact that measurements of CH_4 emissions from gas engines have been carried out on a large number of plants - contrary to other stationary combustion plants. Thus CH_4 emission factors for gas engines are more accurate than emission factors for other stationary combustion plants.

Uncertainty of CH_4 emission factors for gas engines is estimated to be less than 40% /5/. Uncertainty of other stationary sources is assumed to be 100% referring to GPG Table 2.5. The combined fuel rate uncertainty of stationary combustion plants is estimated to 2,2% (Appendix 4.6). Calculation of CH_4 emissions from gas engines is based on the Danish emission database that specifies fuel consumption in reciprocating engines.

Overall uncertainty of the Danish CH_4 emission from stationary combustion plants year 2001 is 39% and the trend uncertainty is 389%. Calculation sheet is shown in appendix 4.6.

N_2O:
Stationary combustion plants are not disaggregated following the key source analysis. Uncertainty of N_2O emission factors is assumed to be 1000% referring to GPG Table 2.5. The combined fuel rate uncertainty of stationary combustion plants is again estimated to be 2,0%.

The overall uncertainty of the Danish N_2O emission from stationary combustion plants year 2001 is 1000% and the trend uncertainty is 2,3%. Calculation sheet is shown in appendix 4.6.

SO_2, NO_x, NMVOC and CO
The uncertainty estimation of SO_2, NO_x, NMVOC and CO are based on the methodology in Good Practice Guidance for CLRTAP Emission Inventories /7/. The methodology follows the tier 1 methodology of GPG. Source categories follow the SNAP main sectors thus 3 categories of stationary combustion plants are considered.

Uncertainty of fuel rates are assumed to be 2% based on /7/. Uncertainty of emission factors are taken from /7/ assuming that uncertainty is always in the lower end of the interval given in chapter 2.3.3 b. Estimated uncertainties of SO_2, NO_x, NMVOC and CO from stationary combustion plants are shown in Table 3. In general the calculated uncertainties in this first attempt estimation are assumed to be overestimated due to the fact that a considerable part of e.g. SO_2 and NO_x emissions in the Danish inventory is based on emissions measurements.

Table 3 Uncertainty, SO_2, NO_x, NMVOC and CO

Pollutant	Uncertainty of emission inventory [%]	Uncertainty of emission trend [%]
SO_2	7	0,5
NO_x	15	3,1
NMVOC	36	23
CO	45	6

QA/QC and verification

A formal QA / QC plan has not yet been developed, but a number of quality control (QC) procedures are performed. The Danish QC includes:

- Check of time series of the CRF and SNAP source categories. Considerable changes are checked and explained.
- Comparison to inventory of the previous year. Any major changes are verified.
- Total emissions when aggregated to CRF source categories are compared to totals based on SNAP source categories (control of data transfer).
- A manual log table have been introduced in the emission databases to collect information about recalculations

In addition to the general QC procedures some additional QC are performed for stationary combustion plants:

General:

- The CRF reference approach validates the fuel consumption rates and CO_2 emissions of fuel combustion. Fuel consumption rates are within 1,9% difference (1990-2001) and CO_2 emissions are within 1,7% difference.
- The emission from each large point source is compared to the emission reported the previous year.
- Some automated checks have been prepared for the emission databases:
  1. Check of units for fuel rate, emission factor and plant specific emissions
  2. Check of emission factors of large point sources. Emission factors of pollutants that are not plant specific should be the same as the emission factor that are defined for area sources.
  3. Additional checks of database consistency
- Most emission factor references are now implemented in the emission database itself.

Country specific emission factors:

- Annual environmental reports are kept for subsequent control of plant specific emission data
- QA / QC checks of the country specific emission factors have not been performed but most factors are based on work from companies that have implemented some QA / QC work. The two major power plant owners / operators in Denmark: E2 and Elsam both obtained the ISO 14001 certification for environmental management system. Danish Gas Technology Centre and dk-Teknik both run accredited laboratories for emission measurements.

Uncertainty

QA / QC of uncertainty estimates have not yet been performed.

Future improvements

Some improvements are planned for the future greenhouse gas emissions inventory.

A research project aiming at improving emission factors for cogeneration plants (combined heat and power production) <25MW$_e$ will be reported in May 2003 /9/. The emission factors determined in this work is better documented than the emission factors used presently. E.g. N_2O emission measurements have been performed on a considerable number of plants. In addition to improvements of the emission factors themselves it will be possible to make better estimates of uncertainties. Further, time series of the CH_4 emission factor for gas engines will be implemented.

Improved estimates of CO_2 emission from incineration of the plastic part of municipal waste are planned. Up till now the lower heating value of plastic is assumed to equal the lower heating value of crude oil. A heating value for plastic will be used in future inventories.

The first attempt uncertainty analyse that has been reported this year is excepted to be improved next year when more country specific uncertainties for fuel consumption and emission factors have been incorporated.

References

1. Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP Task Force on Emissions Inventories and Projections
2. Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories, IPCC
3. Bekendtgørelse om begrænsning af udledning af svovldioxid og kvælstofoxider fra kraftværker (Kvotebekendtgørelsen). Bekendtgørelse 885 af 18/12/1991 (Danish legislation)
4. Emissionsforhold for gasdrevne kraftvarmeanlæg <25MW_e, Arbejdsrapport fra Miljøstyrelsen nr 17 1997 (In Danish)
5. Estimated by Danish Gas Technology Centre, mail 10.04.2003
6. Kontrol af indberetning af CO_2-udledning fra el-producenter i 2001, Carl Bro for Energistyrelsens 6. kontor (mail 13.08.2002) (In Danish, not published)
7. Good Practice Guidance for CLRTAP Emission Inventories, Draft chapter for the UNECE Corinair Guidebook, 7 November 2001
8. Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 3, Greenhouse Gas Inventory Reference Manual
9. Kortlægning af emissioner fra decentrale kraftvarmeværker, Eltra PSO projekt 3141 (In Danish, in print)

Appendix 4.1 Emission factors

Table 4 Emission factors 2001, CO_2

Fuel	Biomass	Emission factor	Unit	Reference type	Reference
Coal		95	kg/GJ	cs	Elsam (major producer of electricity and district heating)
Petroleum coke		92	kg/GJ	cs	SK Energi
Wood	x	102	kg/GJ	c	-
Municipal waste (biomass part)	x	97,8	kg/GJ	cs	Calculation based on data from Danish Environmental Protection Agency. See appendix 4.4.
Municipal waste (plastic part)		19,2	kg/GJ	cs	
Agricultural waste (straw)	x	102	kg/GJ	cs	-
Residual oil		78	kg/GJ	c	1)
Gas oil		74	kg/GJ	c	1)
Kerosene		72	kg/GJ	c	1) (~73 kg/GJ)
Liquid bio fuel	x	102	kg/GJ	c	-
Orimulsion		80	kg/GJ	cs	The Danish Energy Authority
Natural gas		57,25	kg/GJ	cs	Danish Gas Technology Centre, calculation based on average gas quality stated by DONG
LPG		52	kg/GJ	c	1)
Refinery gas		57,1	kg/GJ	cs	Assumed same emission factor as natural gas
Bio gas	x	83,6	kg/GJ	cs	Calculation based of typical manure gas stated by Danish Gas Technology Centre

1) Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP

Table 5 Emission factors 1990-2001, CO_2

fuel	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Coal	kg/GJ	95	95	95	95	95	95	95	95	95	95	95	95
Petroleum coke	kg/GJ	102	102	102	102	102	102	102	102	92	92	92	92
Wood	kg/GJ	102	102	102	102	102	102	102	102	102	102	102	102
Municipal waste (biomass part)	kg/GJ	92,56	92,56	94,73	95,68	95,68	96,96	97,91	97,91	97,6	97,8	97,8	97,8
Municipal waste (plastic part)	kg/GJ	24,44	24,44	22,27	21,32	21,32	20,04	19,09	19,09	19,4	19,2	19,2	19,2
Agricultural waste (straw)	kg/GJ	102	102	102	102	102	102	102	102	102	102	102	102
Residual oil	kg/GJ	78	78	78	78	78	78	78	78	78	78	78	78
Gas oil	kg/GJ	74	74	74	74	74	74	74	74	74	74	74	74
Kerosene	kg/GJ	72	72	72	72	72	72	72	72	72	72	72	72
Liquid bio fuel	kg/GJ												102
Orimulsion	kg/GJ						80	80	80	80	80	80	80
Natural gas	kg/GJ	56,9	56,9	56,9	56,9	56,9	56,9	56,9	56,9	56,9	56,9	57,1	57,25
LPG	kg/GJ	65	65	65	65	65	65	65	65	65	65	65	52
Refinery gas	kg/GJ	56,9	56,9	56,9	56,9	56,9	56,9	56,9	56,9	56,9	56,9	57,1	57,1
Bio gas	kg/GJ	83,6	83,6	83,6	83,6	83,6	83,6	83,6	83,6	83,6	83,6	83,6	83,6

Table 6 Emission factors 2001

fuel	ipcc_id	snap	unit1	unit2	CH4	Reference	N2O	Reference	SO2	Reference	NOX	Reference	NMVOC	Reference	CO	Reference
AGRICUL. WASTES	1A1a	010102	g	GJ	32	C 1	4	C 1	100	CS 5 19	153	SC 28	50	C 1	50	CS 3
AGRICUL. WASTES	1A1a	010103	g	GJ	32	C 1	4	C 1	100	CS 5 19	156	CS 4	50	C 1	50	CS 3
AGRICUL. WASTES	1A1a	010202	g	GJ	32	C 1	4	C 1	100	CS 5 19	153	CS 28	50	C 1	325	CS 4 5
AGRICUL. WASTES	1A1a	010203	g	GJ	32	C 1	4	C 1	100	CS 5 19	156	CS 4	50	C 1	325	CS 4 5
AGRICUL. WASTES	1A2f	030102	g	GJ	32	C 1	4	C 1	100	CS 5 19	153	CS 28	50	C 1	325	CS 4 5
AGRICUL. WASTES	1A2f	030105	g	GJ	32	C 1	4	C 1	100	CS 5 19	153	CS 28	50	C 1	325	CS 4 5
AGRICUL. WASTES	1A4a	0201	g	GJ	200	C 1	4	C 1	100	CS 5 19	153	CS 28	600	C 1	325	CS 4 5
AGRICUL. WASTES	1A4b	0202	g	GJ	200	C 1	4	C 1	100	CS 5 19	153	CS 28	600	C 1	4000	CS 1 6 7
AGRICUL. WASTES	1A4c	0203	g	GJ	200	C 1	4	C 1	100	CS 5 19	153	CS 28	600	C 1	325	CS 4 5
AGRICUL. WASTES	1A4c	020302	g	GJ	200	C 1	4	C 1	100	CS 5 19	153	CS 28	600	C 1	325	CS 4 5
BIOGAS	1A1a	010102	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A1a	010103	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A1a	010105	g	GJ	434	CS 2	2	C 1	11	CS 26	605	CS 2	4	C 1	255	CS 2
BIOGAS	1A1a	010203	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A1c	010405	g	GJ	434	CS 2	2	C 1	11	CS 26	605	CS 2	4	C 1	255	CS 2
BIOGAS	1A1c	010505	g	GJ	434	CS 2	2	C 1	11	CS 26	605	CS 2	4	C 1	255	CS 2
BIOGAS	1A2f	0301	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A2f	030102	g	GJ	4	C 1	2	C 1	11	CS 26	66	CS 4	4	C 1	36	CS 8
BIOGAS	1A2f	030105	g	GJ	434	CS 2	2	C 1	11	CS 26	605	CS 2	4	C 1	255	CS 2
BIOGAS	1A4a	0201	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A4a	020103	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A4a	020105	g	GJ	434	CS 2	2	C 1	11	CS 26	605	CS 2	4	C 1	255	CS 2
BIOGAS	1A4c	0203	g	GJ	4	C 1	2	C 1	11	CS 26	31	CS 4	4	C 1	36	CS 8
BIOGAS	1A4c	020304	g	GJ	434	CS 2	2	C 1	11	CS 26	605	CS 2	4	C 1	255	CS 2
BLACK LIQUOR	1A1a	010203	g	GJ	32	CS 15	4	C 4	100	CS 15	153	CS 15	50	CS 15	325	CS 15
BLACK LIQUOR	1A4c	020304	g	GJ	200	CS 15	4	C 4	100	CS 15	153	CS 15	600	CS 15	325	CS 15
GAS OIL	1A1a	0101	g	GJ	1,5	C 1	2	C 1	23	CS 27	65	CS 28	1,5	C 1	15	CS 3
GAS OIL	1A1a	010101	g	GJ	1,5	C 1	2	C 1	23	CS 27	65	CS 28	1,5	C 1	15	CS 3
GAS OIL	1A1a	010102	g	GJ	1,5	C 1	2	C 1	23	CS 27	65	CS 28	1,5	C 1	15	CS 3
GAS OIL	1A1a	010103	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	1,5	C 1	15	CS 3
GAS OIL	1A1a	010104	g	GJ	1,5	C 1	2	C 1	23	CS 27	350	C 1	2	C 1	15	CS 3
GAS OIL	1A1a	010105	g	GJ	1,5	C 1	2	C 1	23	CS 27	700	- -	100	C 1	100	C 1
GAS OIL	1A1a	010202	g	GJ	1,5	C 1	2	C 1	23	CS 27	65	CS 28	1,5	C 1	30	C 1
GAS OIL	1A1a	010203	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	1,5	C 1	30	C 1
GAS OIL	1A1a	010205	g	GJ	1,5	C 1	2	C 1	23	CS 27	700	- -	100	C 1	100	C 1
GAS OIL	1A2f	0301	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	1,5	C 1	30	C 1
GAS OIL	1A2f	030102	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	1,5	C 1	30	C 1
GAS OIL	1A2f	030103	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	1,5	C 1	30	C 1
GAS OIL	1A2f	030104	g	GJ	1,5	C 1	2	C 1	23	CS 27	350	C 1	2	C 1	15	CS 3
GAS OIL	1A2f	030105	g	GJ	1,5	C 1	2	C 1	23	CS 27	700	- -	100	C 1	100	C 1
GAS OIL	1A2f	030106	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	1,5	C 1	30	C 1
GAS OIL	1A4a	0201	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	3	C 1	30	C 1
GAS OIL	1A4a	020103	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	3	C 1	30	C 1
GAS OIL	1A4a	020105	g	GJ	1,5	C 1	2	C 1	23	CS 27	700	- -	100	C 1	100	C 1
GAS OIL	1A4b	0202	g	GJ	1,5	C 1	2	C 1	23	CS 27	52	CS 4	3	C 1	43	C 1
GAS OIL	1A4c	020304	g	GJ	1,5	C 1	2	C 1	23	CS 27	700	- -	100	C 1	100	C 1
KEROSENE	1A2f	0301	g	GJ	7	C 1	2	C 1	23	CS 27	73	C 1	3	C 1	20	C 1
KEROSENE	1A4a	0201	g	GJ	7	C 1	2	C 1	23	CS 30	73	C 1	3	C 1	20	C 1
KEROSENE	1A4b	0202	g	GJ	7	C 1	2	C 1	23	CS 30	73	C 1	3	C 1	20	C 1
KEROSENE	1A4c	0203	g	GJ	7	C 1	2	C 1	23	CS 30	73	C 1	3	C 1	20	C 1
LPG	1A1a	010203	g	GJ	1	C 1	1	C 1	1	- -	50	C 1	2	C 1	25	C 1
LPG	1A2f	0301	g	GJ	1	C 1	2	C 1	1	- -	50	C 1	2	C 1	25	C 1
LPG	1A4a	0201	g	GJ	1	C 1	2	C 1	1	- -	50	C 1	2	C 1	25	C 1
LPG	1A4b	0202	g	GJ	1	C 1	2	C 1	1	- -	50	C 1	2	C 1	25	C 1
MUNICIP. WASTES	1A1a	010102	g	GJ	6	C 1	4	C 1	69	CS 9	150	CS 9	9	C 1	10	CS 9

MUNICIP. WASTES	1A1a	010103	g	GJ	6	C	1	4	C	1	69	CS	9	150	CS	9	9	C	1	10	CS	9
MUNICIP. WASTES	1A1a	010104	g	GJ	6	C	1	4	C	1	69	CS	9	150	CS	9	9	C	1	10	CS	9
MUNICIP. WASTES	1A1a	010105	g	GJ	6	C	1	4	C	1	69	CS	9	150	CS	9	9	C	1	10	CS	9
MUNICIP. WASTES	1A1a	010203	g	GJ	6	C	1	4	C	1	69	CS	9	150	CS	9	9	C	1	10	CS	9
MUNICIP. WASTES	1A4a	0201	g	GJ	6	C	1	4	C	1	69	CS	9	150	CS	9	9	C	1	10	CS	9
MUNICIP. WASTES	1A4a	020103	g	GJ	6	C	1	4	C	1	69	CS	9	150	CS	9	9	C	1	10	CS	9
NATURAL GAS	1A1a	0101	g	GJ	6	CS	14	1	C	1	0,3	CS	17	100	CS	18	2	CS	14	15	CS	3
NATURAL GAS	1A1a	010101	g	GJ	6	CS	14	1	C	1	0,3	CS	17	88	CS	9	2	CS	14	15	CS	3
NATURAL GAS	1A1a	010102	g	GJ	6	CS	14	1	C	1	0,3	CS	17	88	CS	9	2	CS	14	15	CS	3
NATURAL GAS	1A1a	010103	g	GJ	15	CS	11	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	15	CS	3
NATURAL GAS	1A1a	010104	g	GJ	4	CS	2	1	C	1	0,3	CS	17	88	CS	9	1	CS	2	7	CS	10
NATURAL GAS	1A1a	010105	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
NATURAL GAS	1A1a	010202	g	GJ	6	CS	14	1	C	1	0,3	CS	17	100	CS	18	2	CS	14	28	CS	4
NATURAL GAS	1A1a	010203	g	GJ	15	CS	11	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A1b	010304	g	GJ	4	CS	2	1	C	1	0,3	CS	17	174	CS	2	1	CS	2	7	CS	10
NATURAL GAS	1A1c	010405	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
NATURAL GAS	1A1c	010502	g	GJ	6	CS	14	1	C	1	0,3	CS	17	100	CS	18	2	CS	14	28	CS	4
NATURAL GAS	1A1c	010504	g	GJ	4	CS	2	1	C	1	0,3	CS	17	174	CS	2	1	CS	2	7	CS	10
NATURAL GAS	1A1c	010505	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
NATURAL GAS	1A2f	0301	g	GJ	6	CS	14	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A2f	030103	g	GJ	15	CS	11	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A2f	030104	g	GJ	4	CS	2	1	C	1	0,3	CS	17	174	CS	2	1	CS	2	7	CS	10
NATURAL GAS	1A2f	030105	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
NATURAL GAS	1A2f	030106	g	GJ	15	CS	11	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A4a	0201	g	GJ	6	CS	14	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A4a	020103	g	GJ	15	CS	11	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A4a	020104	g	GJ	4	CS	2	1	C	1	0,3	CS	17	174	CS	2	1	CS	2	7	CS	10
NATURAL GAS	1A4a	020105	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
NATURAL GAS	1A4b	0202	g	GJ	6	CS	14	1	C	1	0,3	CS	17	30	CS	4	4	CS	11	20	CS	11
NATURAL GAS	1A4b	020202	g	GJ	15	CS	11	1	C	1	0,3	CS	17	30	CS	4	4	CS	11	20	CS	11
NATURAL GAS	1A4b	020204	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
NATURAL GAS	1A4c	0203	g	GJ	6	CS	14	1	C	1	0,3	CS	17	30	CS	4	2	CS	14	28	CS	4
NATURAL GAS	1A4c	020303	g	GJ	4	CS	2	1	C	1	0,3	CS	17	174	CS	2	1	CS	2	7	CS	10
NATURAL GAS	1A4c	020304	g	GJ	573	CS	2	1	C	1	0,3	CS	17	193	CS	2	163	CS	2	169	CS	2
OTHER LIQ. FUEL (Orimulsion)	1A1a	010101	g	GJ	3	CS	16	2	C	16	10	CS	16	88	CS	9	3	CS	16	15	CS	16
PETROLEUM COKE	1A2f	0301	g	GJ	15	C	1	3	C	1	573	CS	24	50	C	1	1,5	C	1	61	CS	4
PETROLEUM COKE	1A4a	0201	g	GJ	15	C	1	3	C	1	573	CS	24	50	C	1	1,5	C	1	1000	C	1
PETROLEUM COKE	1A4b	0202	g	GJ	15	C	1	3	C	1	573	CS	24	50	C	1	1,5	C	1	1000	C	1
PETROLEUM COKE	1A4c	0203	g	GJ	15	C	1	3	C	1	573	CS	24	50	C	1	1,5	C	1	1000	C	1
REFINERY GAS	1A1b	010303	g	GJ	2	C	1	2	C	1	0,3	CS	23	30	CS	23	4	C	1	15	C	1
REFINERY GAS	1A1b	010304	g	GJ	2	C	1	2	C	1	0,3	CS	23	174	CS	23	4	C	1	15	C	1
RESIDUAL OIL	1A1a	0101	g	GJ	3	C	1	2	C	1	315	CS	20	240	CS	18	3	C	1	15	CS	3
RESIDUAL OIL	1A1a	010101	g	GJ	3	C	1	2	C	1	315	CS	20	240	CS	18	3	C	1	15	CS	3
RESIDUAL OIL	1A1a	010102	g	GJ	3	C	1	2	C	1	315	CS	20	240	CS	18	3	C	1	15	CS	3
RESIDUAL OIL	1A1a	010103	g	GJ	3	C	1	2	C	1	315	CS	20	142	CS	4	3	C	1	15	CS	3
RESIDUAL OIL	1A1a	010104	g	GJ	3	C	1	2	C	1	315	CS	20	142	CS	4	3	C	1	15	C	1
RESIDUAL OIL	1A1a	010202	g	GJ	3	C	1	2	C	1	315	CS	20	240	CS	18	3	C	1	30	C	1
RESIDUAL OIL	1A1a	010203	g	GJ	3	C	1	2	C	1	315	CS	20	142	CS	4	3	C	1	30	C	1
RESIDUAL OIL	1A1b	010303	g	GJ	3	C	1	2	C	1	315	CS	20	142	CS	4	3	C	1	30	C	1
RESIDUAL OIL	1A2f	0301	g	GJ	3	C	1	2	C	1	344	CS	25	130	CS	28	3	C	1	30	C	1
RESIDUAL OIL	1A2f	030102	g	GJ	3	C	1	2	C	1	344	CS	25	130	CS	28	3	C	1	30	C	1
RESIDUAL OIL	1A2f	030103	g	GJ	3	C	1	2	C	1	344	CS	25	142	CS	4	3	C	1	30	C	1
RESIDUAL OIL	1A2f	030104	g	GJ	3	C	1	2	C	1	344	CS	25	142	CS	4	3	C	1	15	C	1
RESIDUAL OIL	1A2f	030105	g	GJ	3	C	1	2	C	1	344	CS	25	142	CS	4	3	C	1	100	C	1
RESIDUAL OIL	1A4a	0201	g	GJ	3	C	1	2	C	1	344	CS	25	130	CS	28	3	C	1	30	C	1
RESIDUAL OIL	1A4a	020105	g	GJ	3	C	1	2	C	1	344	CS	25	142	CS	4	3	C	1	100	C	1
RESIDUAL OIL	1A4b	0202	g	GJ	3	C	1	2	C	1	344	CS	25	130	CS	28	3	C	1	30	C	1
RESIDUAL OIL	1A4c	0203	g	GJ	3	C	1	2	C	1	344	CS	25	130	CS	28	3	C	1	30	C	1
RESIDUAL OIL	1A4c	020302	g	GJ	3	C	1	2	C	1	344	CS	25	130	CS	28	3	C	1	30	C	1
RESIDUAL OIL	1A4c	020304	g	GJ	3	C	1	2	C	1	344	CS	25	142	CS	4	3	C	1	100	C	1
STEAM COAL	1A1a	010101	g	GJ	1,5	C	1	3	C	1	39	CS	21	139	CS	21	1,5	C	1	10	CS	3
STEAM COAL	1A1a	010102	g	GJ	1,5	C	1	3	C	1	39	CS	21	139	CS	21	1,5	C	1	10	CS	3

STEAM COAL	1A1a	010103	g	GJ	15	C	1	3	C	1	464	CS	20	95	CS	4	1,5	C	1	10	CS	3
STEAM COAL	1A1a	010202	g	GJ	15	C	1	3	C	1	464	CS	20	95	CS	4	15	C	1	10	CS	3
STEAM COAL	1A1a	010203	g	GJ	15	C	1	3	C	1	464	CS	20	95	CS	4	15	C	1	10	CS	3
STEAM COAL	1A2f	0301	g	GJ	15	C	1	3	C	1	464	CS	20	95	CS	4	15	C	1	10	C	1
STEAM COAL	1A4b	0202	g	GJ	15	C	1	3	C	1	464	CS	20	95	CS	4	15	C	1	10	C	1
STEAM COAL	1A4c	0203	g	GJ	15	C	1	3	C	1	464	CS	20	95	CS	4	15	C	1	10	C	1
WOOD AND SIMIL.	1A1a	010102	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	50	CS	3
WOOD AND SIMIL.	1A1a	010103	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	50	CS	3
WOOD AND SIMIL.	1A1a	010105	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	50	CS	3
WOOD AND SIMIL.	1A1a	010202	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	240	CS	4
WOOD AND SIMIL.	1A1a	010203	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	240	CS	4
WOOD AND SIMIL.	1A1a	010205	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	240	CS	4
WOOD AND SIMIL.	1A2f	0301	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	240	CS	4
WOOD AND SIMIL.	1A2f	030102	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	240	CS	4
WOOD AND SIMIL.	1A2f	030103	g	GJ	32	C	1	4	C	1	25	CS	22	130	CS	22	48	C	1	240	CS	4
WOOD AND SIMIL.	1A4a	0201	g	GJ	200	C	1	4	C	1	25	CS	22	130	CS	22	600	C	1	240	CS	4
WOOD AND SIMIL.	1A4a	020105	g	GJ	200	C	1	4	C	1	25	CS	22	130	CS	22	600	C	1	240	CS	4
WOOD AND SIMIL.	1A4b	0202	g	GJ	200	C	1	4	C	1	25	CS	22	130	CS	22	600	C	1	9000	CS	12 13
WOOD AND SIMIL.	1A4c	0203	g	GJ	200	C	1	4	C	1	25	CS	22	130	CS	22	600	C	1	240	CS	4

1. Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP Task Force on Emissions Inventories and Projections
2. Emissionsforhold for gasdrevne kraftvarmeanlæg <25MWe, Arbejdsrapport fra Miljøstyrelsen nr 17 1997 (In Danish)
3. Elsam, Bo Sander, mail 17-05-2002
4. Luftvejledningen, Begrænsning af luftforurening fra virksomheder, Vejledning fra Miljøstyrelsen Nr. 2 2001 (Danish legislation)
5. Halm til energiformål, Teknik – Miljø – Økonomi, 2. udgave, 1998, Videncenter for halm og flisfyring (In Danish)
6. Emissioner fra halm- og flisfyr, dk-Teknik 1990 (In Danish)
7. Danish Technological Institute, personal comunication
8. dk-Teknik, personal comunication
9. Calculation based on annual environmental reports of Danish plants year 2000
10. Technical note from Danish Gas Technology Centre, Eltra PSO 2002 (In Danish, not published)
11. Energi- og miljøoversigt, Danish Gas Technology Centre 2000 (In Danish)
12. Miljøprojekt 149/1990 Emissionsundersøgelse for pejse og brændeovne, Miljøstyrelsen (In Danish)
13. Miljøprojekt 249/1994 Emissioner af dioxiner fra pejse og brændeovne, Miljøstyrelsen (In Danish)
14. Naturgas – Energi og miljø, Danish Gas Technology Centre, 2000 (In Danish)
15. Same emission factors as agricultural waste (straw) is assumed
16. Same emission factors as residual oil assumed
17. Calculation based on S content of natural gas 6mg(S)/m_n^3 gas. S content from the Danish natural gas transmission company DONG
18. Indberetning af SO_2 og NO_x emissioner, Eltra og Elkraft System (Reportingof SO_2 and NO_x emissions from power plants >25MW_e due to Danish legislation)
19. Fyring med biomassebaserede restprodukter, Miljøprojekt nr. 358 1997, Miljøstyrelsen
20. Indberetning af SO_2 og NO_x emissioner, Eltra og Elkraft System, antaget ingen røggasrensning for arealkilder (Reportingof SO_2 and NO_x emissions from power plants >25MW_e due to Danish legislation)
21. Average of large point sources 2000
22. Træ til energiformål, Teknik – Miljø – Økonomi, 2. udgave, 1999, Videncenter for halm og flisfyring (In Danish)
23. Same emission factor as for natural gas assumed
24. Bekendtgørelseom begrænsning af svovlindholdet i visse flydende og faste brændstoffer, Bekendtgørelse 698 af 22/09/1998 (Danish legislation)
25. Assumed 0,7% S. Product data from Shell and Statoil
26. S content stated by plant owners (~200 ppm H2S)
27. Assumed 0,05% S. Bilag 750, Kom 97/0105 and product sheets from Q8, Shell and Statoil
28. Bekendtgørelse om begrænsning af emissioner af svovldioxid, kvælstofoxider og støv fra store fyringsanlæg, Bekendtgørelse 689 af 15/10/1990 (Danish legislation)
29. –
30. Product sheet from Shell

Table 7 Emission factors of CH_4 [g/GJ] Time series of area sources

fuel_gr_abbr	snap_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
STEAM COAL	010101 and 010102	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
STEAM COAL	Other	15	15	15	15	15	15	15	15	15	15	15	15
PETROLEUM COKE	all	15	15	15	15	15	15	15	15	15	15	15	15
WOOD AND SIMIL.	01 and 03	32	32	32	32	32	32	32	32	32	32	32	32
WOOD AND SIMIL.	02	200	200	200	200	200	200	200	200	200	200	200	200
MUNICIP. WASTES	all	6	6	6	6	6	6	6	6	6	6	6	6
AGRICUL. WASTES	01 and 03	32	32	32	32	32	32	32	32	32	32	32	32
AGRICUL. WASTES	02	200	200	200	200	200	200	200	200	200	200	200	200
RESIDUAL OIL	all	3	3	3	3	3	3	3	3	3	3	3	3
GAS OIL	all	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
KEROSENE	all	7	7	7	7	7	7	7	7	7	7	7	7
BLACK LIQUOR	010203												32
BLACK LIQUOR	020304												200
OTHER LIQ. FUEL (Orimulsion)	0101						3	3	3	3	3	3	3
NATURAL GAS	Engines: 010105, 010405, 010505, 020105, 020204, 020304, 030105	573	573	573	573	573	573	573	573	573	573	573	573
NATURAL GAS	Gas turbines: 010104, 010304, 010504, 020104, 020303, 030104	4	4	4	4	4	4	4	4	4	4	4	4
NATURAL GAS	0101, 010101, 010102, 0102, 0103, 010302, 010502, 0201, 0202, 0203, 020302, 0301	6	6	6	6	6	6	6	6	6	6	6	6
NATURAL GAS	010103, 010203, 010406, 020103, 020202, 030103, 030106	15	15	15	15	15	15	15	15	15	15	15	15
NATURAL GAS	010202										15	6	6
LPG	all	1	1	1	1	1	1	1	1	1	1	1	1
REFINERY GAS	all	2	2	2	2	2	2	2	2	2	2	2	2
BIOGAS	Engines: 010105, 010405, 010505, 020105, 020304, 030105									434	434	434	434
BIOGAS	Other	4	4	4	4	4	4	4	4	4	4	4	4

Table 8 Emission factors of N_2O [g/GJ] Time series of area sources

fuel_gr_abbr	snap_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
STEAM COAL	all	3	3	3	3	3	3	3	3	3	3	3	3
PETROLEUM COKE	all	3	3	3	3	3	3	3	3	3	3	3	3
WOOD AND SIMIL.	all	4	4	4	4	4	4	4	4	4	4	4	4
MUNICIP. WASTES	all	4	4	4	4	4	4	4	4	4	4	4	4
RESIDUAL OIL	all	2	2	2	2	2	2	2	2	2	2	2	2
GAS OIL	all	2	2	2	2	2	2	2	2	2	2	2	2
KEROSENE	all	2	2	2	2	2	2	2	2	2	2	2	2
BLACK LIQUOR	all												4
OTHER LIQ. FUEL (Orimulsion)	0101						2	2	2	2	2	2	2
NATURAL GAS	all	1	1	1	1	1	1	1	1	1	1	1	1
LPG	all	2	2	2	2	2	2	2	2	2	2	1 or 2	1 or 2
REFINERY GAS	all	2	2	2	2	2	2	2	2	2	2	2	2
BIOGAS	all	2	2	2	2	2	2	2	2	2	2	2	2

Table 9 Emission factors of NMVOC [g/GJ] Time series of area sources

fuel_gr_abbr	snap_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
STEAM COAL	0101	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
STEAM COAL	Other	15	15	15	15	15	15	15	15	15	15	15	15
PETROLEUM COKE	all	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
WOOD AND SIMIL.	01 and 03	48	48	48	48	48	48	48	48	48	48	48	48
WOOD AND SIMIL.	0201, 0202 and 0203	600	600	600	600	600	600	600	600	600	600	600	600
MUNICIP. WASTES	all	9	9	9	9	9	9	9	9	9	9	9	9
AGRICUL. WASTES	01 and 03	50	50	50	50	50	50	50	50	50	50	50	50
AGRICUL. WASTES	02	600	600	600	600	600	600	600	600	600	600	600	600
RESIDUAL OIL	all	3	3	3	3	3	3	3	3	3	3	3	3
GAS OIL	010105, 010205, 020105, 020304, 030105									100	100	100	100
GAS OIL	010104, 030104									2	2	2	2
GAS OIL	01 and 03 Other	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5	1,5
GAS OIL	02 other	3	3	3	3	3	3	3	3	3	3	3	3
KEROSENE	all	3	3	3	3	3	3	3	3	3	3	3	3
BLACK LIQUOR	010203												50
BLACK LIQUOR	020304												600
OTHER LIQ. FUEL (Orimulsion)	0101						3	3	3	3	3	3	3
NATURAL GAS	Engines: 010105, 010405, 010505, 020105, 020204, 020304, 030105	163	163	163	163	163	163	163	163	163	163	163	163
NATURAL GAS	Gas turbines: 010104, 010304, 010504, 020104, 020303, 030104	1	1	1	1	1	1	1	1	1	1	1	1
NATURAL GAS	0202 (-02)	4	4	4	4	4	4	4	4	4	4	4	4
NATURAL GAS	Other	2	2	2	2	2	2	2	2	2	2	2	2
LPG	all	2	2	2	2	2	2	2	2	2	2	2	2
REFINERY GAS	all	4	4	4	4	4	4	4	4	4	4	4	4
BIOGAS	all	4	4	4	4	4	4	4	4	4	4	4	4

Table 10 Emission factors of CO [g/GJ] Time series of area sources

fuel_gr_abbr	snap_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
STEAM COAL	all	10	10	10	10	10	10	10	10	10	10	10	10
PETROLEUM COKE	010102				61								
PETROLEUM COKE	02	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
PETROLEUM COKE	03	61	61	61	61	61	61	61	61	61	61	61	61
WOOD AND SIMIL.	0101			50	50	50	50	50	50	50	50	50	50
WOOD AND SIMIL.	0102 and 0201	400	373	347	320	293	267	240	240	240	240	240	240
WOOD AND SIMIL.	0202	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000
WOOD AND SIMIL.	0203 and 0301	400	373	347	320	293	267	240	240	240	240	240	240
MUNICIP. WASTES	all	100	85	70	55	40	25	10	10	10	10	10	10
AGRICUL. WASTES	0101	50	50	50	50	50	50	50	50	50	50	50	50
AGRICUL. WASTES	0102 and 0201	600	554	508	463	417	371	325	325	325	325	325	325
AGRICUL. WASTES	0202	8500	8500	8500	8500	8500	7500	6500	5500	4500	4000	4000	4000
AGRICUL. WASTES	0203 and 0301	600	554	508	463	417	371	325	325	325	325	325	325
RESIDUAL OIL	0101	15	15	15	15	15	15	15	15	15	15	15	15
RESIDUAL OIL	0102, 0103, 02	30	30	30	30	30	30	30	30	30	30	30	30
RESIDUAL OIL	0301 (-02 and -03)	30	30	30	30	30	30	30	30	30	30	30	30
RESIDUAL OIL	030104										15	15	15
RESIDUAL OIL	030105												100
GAS OIL	0101 (not –05)	15	15	15	15	15	15	15	15	15	15	15	15
GAS OIL	010105									100	100	100	100
GAS OIL	0102 (not –05) and 0103 and 0104	30	30	30	30	30	30	30	30	30	30	30	30
GAS OIL	010205											100	100
GAS OIL	0201 (-03)	30	30	30	30	30	30	30	30	30	30	30	30
GAS OIL	020105											100	100
GAS OIL	0202 (-02)	43	43	43	43	43	43	43	43	43	43	43	43
GAS OIL	0203 (-02)	30	30	30	30	30	30	30	30				
GAS OIL	020304											100	100
GAS OIL	0301 (-02-, 03)	30	30	30	30	30	30	30	30	30	30	30	30
GAS OIL	030104											15	15
GAS OIL	030105											100	100
GAS OIL	030106	30	30	30	30	30	30	30	30	30	30	30	30
KEROSENE	all	20	20	20	20	20	20	20	20	20	20	20	20
BLACK LIQUOR	all												325
OTHER LIQ. FUEL (Orimulsion)	0101						15	15	15	15	15	15	15
NATURAL GAS	0101 (-01, -02, -03)	15	15	15	15	15	15	15	15	15	15	15	15
NATURAL GAS	010104, 010304, 010504, 020104, 020303, 030104	7	7	7	7	7	7	7	7	7	7	7	7
NATURAL GAS	010105, 010405, 010505, 020105, 020204, 020304, 030105	212	212	212	212	212	212	203	195	186	178	169	169
NATURAL GAS	0202 (-02)	20	20	20	20	20	20	20	20	20	20	20	20
NATURAL GAS	Other	28	28	28	28	28	28	28	28	28	28	28	28
LPG	all	25	25	25	25	25	25	25	25	25	25	25	25
REFINERY GAS	all	15	15	15	15	15	15	15	15	15	15	15	15
BIOGAS	010105, 010405, 010505, 020105, 020304, 030105									255	255	255	255
BIOGAS	Other	36	36	36	36	36	36	36	36	36	36	36	36

Appendix 4.2 Large point sources

Table 11 Large point sources, fuel consumption in 2001 (1A1, 1A2 and 1A4)

lps_id	lps_name	part_id	snap_id	fuel	fuel cons. [GJ]	ipcc_id
001	Amagervaerket	01	010101	STEAM COAL	2785006	1A1a
001	Amagervaerket	01	010101	RESIDUAL OIL	124657	1A1a
001	Amagervaerket	02	010101	STEAM COAL	2765850	1A1a
001	Amagervaerket	02	010101	RESIDUAL OIL	148840	1A1a
001	Amagervaerket	03	010101	STEAM COAL	14334732	1A1a
001	Amagervaerket	03	010101	RESIDUAL OIL	126698	1A1a
002	Svanemoellevaerket	05	010101	NATURAL GAS	1882525	1A1a
002	Svanemoellevaerket	07	010104	NATURAL GAS	4344799	1A1a
003	H.C.Oerstedsvaerket	03	010101	RESIDUAL OIL	1177110	1A1a
003	H.C.Oerstedsvaerket	03	010101	NATURAL GAS	1688830	1A1a
003	H.C.Oerstedsvaerket	07	010101	RESIDUAL OIL	1931452	1A1a
003	H.C.Oerstedsvaerket	07	010101	NATURAL GAS	2327121	1A1a
004	Kyndbyvaerket	22	010101	RESIDUAL OIL	103088	1A1a
004	Kyndbyvaerket	26	010101	RESIDUAL OIL	187734	1A1a
004	Kyndbyvaerket	28	010101	RESIDUAL OIL	89515	1A1a
004	Kyndbyvaerket	41	010105	GAS OIL	1009	1A1a
004	Kyndbyvaerket	51	010104	GAS OIL	6186	1A1a
004	Kyndbyvaerket	52	010104	GAS OIL	7801	1A1a
005	Masnedoevaerket	12	010102	WOOD AND SIMIL.	95934	1A1a
005	Masnedoevaerket	12	010102	AGRICUL. WASTES	484060	1A1a
005	Masnedoevaerket	12	010102	GAS OIL	1108	1A1a
005	Masnedoevaerket	31	010104	GAS OIL	5584	1A1a
007	Stigsnaesvaerket	01	010101	STEAM COAL	330455	1A1a
007	Stigsnaesvaerket	01	010101	RESIDUAL OIL	67899	1A1a
007	Stigsnaesvaerket	02	010101	STEAM COAL	5558569	1A1a
007	Stigsnaesvaerket	02	010101	RESIDUAL OIL	250782	1A1a
008	Asnaesvaerket	01	010101	RESIDUAL OIL	144268	1A1a
008	Asnaesvaerket	03	010101	STEAM COAL	2173576	1A1a
008	Asnaesvaerket	03	010101	RESIDUAL OIL	66746	1A1a
008	Asnaesvaerket	04	010101	STEAM COAL	7479179	1A1a
008	Asnaesvaerket	04	010101	RESIDUAL OIL	82560	1A1a
008	Asnaesvaerket	05	010101	RESIDUAL OIL	266167	1A1a
008	Asnaesvaerket	05	010101	OTHER LIQ. FUEL	30243677	1A1a
009	Statoil Raffinaderi	01	010306	RESIDUAL OIL	765537	1A1b
009	Statoil Raffinaderi	01	010306	REFINERY GAS	6909888	1A1b
010	Avedoerevaerket	01	010101	STEAM COAL	17199365	1A1a
010	Avedoerevaerket	01	010101	RESIDUAL OIL	63657	1A1a
010	Avedoerevaerket	01	010101	GAS OIL	40018	1A1a
010	Avedoerevaerket	02	010104	AGRICUL. WASTES	101730	1A1a
010	Avedoerevaerket	02	010104	RESIDUAL OIL	1715776	1A1a
010	Avedoerevaerket	02	010104	NATURAL GAS	1279897	1A1a
011	Fynsvaerket	03	010101	STEAM COAL	1684670	1A1a
011	Fynsvaerket	03	010101	WOOD AND SIMIL.	920	1A1a
011	Fynsvaerket	03	010101	MUNICIP. WASTES	185500	1A1a
011	Fynsvaerket	03	010101	AGRICUL. WASTES	10070	1A1a
011	Fynsvaerket	03	010101	RESIDUAL OIL	98330	1A1a
011	Fynsvaerket	03	010101	NATURAL GAS	7666490	1A1a
011	Fynsvaerket	07	010101	STEAM COAL	10731460	1A1a
011	Fynsvaerket	07	010101	RESIDUAL OIL	88460	1A1a
011	Fynsvaerket	08	010101	MUNICIP. WASTES	2623520	1A1a
011	Fynsvaerket	08	010101	GAS OIL	42420	1A1a
012	Studstrupvaerket	03	010101	STEAM COAL	15240450	1A1a
012	Studstrupvaerket	03	010101	RESIDUAL OIL	132130	1A1a
012	Studstrupvaerket	04	010101	STEAM COAL	11462760	1A1a
012	Studstrupvaerket	04	010101	AGRICUL. WASTES	28160	1A1a
012	Studstrupvaerket	04	010101	RESIDUAL OIL	136920	1A1a
014	Vendsysselvaerket	03	010101	STEAM COAL	19831710	1A1a
014	Vendsysselvaerket	03	010101	RESIDUAL OIL	206640	1A1a

014	Vendsysselvaerket	03	010101	GAS OIL	15280	1A1a
017	Shell Raffinaderi	01	010306	RESIDUAL OIL	677392	1A1b
017	Shell Raffinaderi	01	010306	REFINERY GAS	4866618	1A1b
017	Shell Raffinaderi	05	010304	REFINERY GAS	2457089	1A1b
018	Skaerbaekvaerket	01	010101	RESIDUAL OIL	85000	1A1a
018	Skaerbaekvaerket	03	010101	GAS OIL	25000	1A1a
018	Skaerbaekvaerket	03	010101	NATURAL GAS	6950000	1A1a
019	Enstedvaerket	03	010101	STEAM COAL	27937970	1A1a
019	Enstedvaerket	03	010101	RESIDUAL OIL	153050	1A1a
019	Enstedvaerket	04	010101	AGRICUL. WASTES	1549480	1A1a
019	Enstedvaerket	04	010101	RESIDUAL OIL	15520	1A1a
020	Esbjergvaerket	03	010101	STEAM COAL	19474710	1A1a
020	Esbjergvaerket	03	010101	RESIDUAL OIL	74420	1A1a
022	Oestkraft	05	010102	RESIDUAL OIL	17990	1A1a
022	Oestkraft	06	010102	STEAM COAL	723407	1A1a
022	Oestkraft	06	010102	WOOD AND SIMIL.	31020	1A1a
022	Oestkraft	06	010102	RESIDUAL OIL	29102	1A1a
023	Danisco Ingredients	01	030102	STEAM COAL	552101	1A2f
023	Danisco Ingredients	01	030102	NATURAL GAS	10500	1A2f
024	Dansk Naturgas Behandlingsanlaeg	01	010502	NATURAL GAS	352650,31	1A1c
025	Horsens Kraftvarmevaerk	01	010102	MUNICIP. WASTES	875920	1A1a
025	Horsens Kraftvarmevaerk	02	010104	NATURAL GAS	878260	1A1a
026	Herningvaerket	01	010102	RESIDUAL OIL	21650	1A1a
026	Herningvaerket	01	010102	NATURAL GAS	3806740	1A1a
027	Vestforbraendingen	01	010102	MUNICIP. WASTES	2086623	1A1a
027	Vestforbraendingen	01	010102	GAS OIL	17862	1A1a
027	Vestforbraendingen	02	010102	MUNICIP. WASTES	3007981	1A1a
028	Amagerforbraendingen	01	010102	MUNICIP. WASTES	3019970	1A1a
029	Randersvaerket	01	010102	STEAM COAL	3229268	1A1a
029	Randersvaerket	01	010102	BIOGAS	23338	1A1a
029	Randersvaerket	02	010102	GAS OIL	46594	1A1a
030	Grenaavaerket	01	010102	STEAM COAL	1017827	1A1a
030	Grenaavaerket	01	010102	WOOD AND SIMIL.	217337	1A1a
030	Grenaavaerket	01	010102	MUNICIP. WASTES	130991	1A1a
030	Grenaavaerket	01	010102	AGRICUL. WASTES	853970	1A1a
030	Grenaavaerket	01	010102	RESIDUAL OIL	77083	1A1a
030	Grenaavaerket	01	010102	GAS OIL	7470	1A1a
031	Hilleroedvaerket	01	010104	NATURAL GAS	3190810	1A1a
032	Helsingoervaerket	01	010104	NATURAL GAS	2066843	1A1a
033	Staalvalsevaerket	01	030102	NATURAL GAS	1803744	1A2f
034	Stora Dalum	01	030102	NATURAL GAS	1054807,5	1A2f
035	Assens Sukkerfabrik	01	030102	STEAM COAL	445279,5	1A2f
035	Assens Sukkerfabrik	01	030102	RESIDUAL OIL	306379,05	1A2f
035	Assens Sukkerfabrik	01	030102	BIOGAS	17020	1A2f
036	Kolding Kraftvarmevaerk	01	010103	MUNICIP. WASTES	762059	1A1a
036	Kolding Kraftvarmevaerk	02	010103	MUNICIP. WASTES	285185	1A1a
037	Maabjergvaerket	02	010102	WOOD AND SIMIL.	432000	1A1a
037	Maabjergvaerket	02	010102	MUNICIP. WASTES	1720000	1A1a
037	Maabjergvaerket	02	010102	AGRICUL. WASTES	408000	1A1a
037	Maabjergvaerket	02	010102	NATURAL GAS	218000	1A1a
038	Soenderborg Kraftvarmevaerk	01	010102	MUNICIP. WASTES	461825	1A1a
038	Soenderborg Kraftvarmevaerk	02	010104	NATURAL GAS	910366	1A1a
039	Kara Affaldsforbraendingsanlaeg	01	010102	MUNICIP. WASTES	1962022	1A1a
039	Kara Affaldsforbraendingsanlaeg	01	010102	NATURAL GAS	16851	1A1a
040	Viborg Kraftvarmevaerk	01	010104	NATURAL GAS	2398896,9	1A1a
042	Nordforbraendingen	01	010102	MUNICIP. WASTES	1018068	1A1a
045	Aalborg Portland	01	030311	STEAM COAL	4718457,5	1A2f
045	Aalborg Portland	01	030311	PETROLEUM COKE	7656733	1A2f
045	Aalborg Portland	01	030311	MUNICIP. WASTES	795492	1A2f
045	Aalborg Portland	01	030311	RESIDUAL OIL	784	1A2f
046	Aarhus Nord	01	010102	MUNICIP. WASTES	1211385	1A1a
046	Aarhus Nord	02	010102	MUNICIP. WASTES	648292	1A1a
047	Reno Nord	01	010103	MUNICIP. WASTES	1487290	1A1a
048	Silkeborg Kraftvarmevaerk	01	010104	NATURAL GAS	3571656	1A1a
049	Rensningsanlægget Lynetten	01	020103	MUNICIP. WASTES	12669	1A4a
049	Rensningsanlægget Lynetten	01	020103	GAS OIL	44010	1A4a
049	Rensningsanlægget Lynetten	01	020103	BIOGAS	84512	1A4a
050	I/S Fasan	01	010203	MUNICIP. WASTES	754394	1A1a
051	AVV Forbrændingsanlæg	01	010103	MUNICIP. WASTES	632966	1A1a
052	I/S REFA Kraftvarmeværk	01	010103	MUNICIP. WASTES	1040783	1A1a

053	Svendborg Kraftvarmeværk	01	010102	MUNICIP. WASTES	470264	1A1a
053	Svendborg Kraftvarmeværk	01	010102	NATURAL GAS	6727	1A1a
054	Kommunekemi	02	010102	MUNICIP. WASTES	651702	1A1a
054	Kommunekemi	02	010102	RESIDUAL OIL	40171	1A1a
054	Kommunekemi	02	010102	GAS OIL	7604	1A1a
054	Kommunekemi	03	010102	MUNICIP. WASTES	637250	1A1a
054	Kommunekemi	03	010102	RESIDUAL OIL	49654	1A1a
054	Kommunekemi	03	010102	GAS OIL	9110	1A1a
054	Kommunekemi	04	010104	NATURAL GAS	1000	1A1a
055	I/S Fælles Forbrænding	01	010203	MUNICIP. WASTES	235484	1A1a
056	Vestfyns Forbrænding	01	010203	MUNICIP. WASTES	242970	1A1a
058	I/S Reno Syd	01	010103	MUNICIP. WASTES	614638	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	MUNICIP. WASTES	562958	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	AGRICUL. WASTES	943	1A1a
060	Knudmoseværket	01	010103	MUNICIP. WASTES	341618	1A1a
060	Knudmoseværket	01	010103	NATURAL GAS	27263	1A1a
061	Kavo I/S Energien	01	010103	MUNICIP. WASTES	699867	1A1a
062	VEGA	01	010203	MUNICIP. WASTES	574350	1A1a
063	Hadsund Bys Fjernvarmeværk	01	010203	WOOD AND SIMIL.	30286	1A1a
063	Hadsund Bys Fjernvarmeværk	01	010203	MUNICIP. WASTES	198468	1A1a
064	Aars Fjernvarmeforsyning	01	010103	WOOD AND SIMIL.	6410	1A1a
064	Aars Fjernvarmeforsyning	01	010103	MUNICIP. WASTES	520526	1A1a
065	Haderslev Kraftvarmeværk	01	010103	MUNICIP. WASTES	615093	1A1a
065	Haderslev Kraftvarmeværk	01	010103	NATURAL GAS	53	1A1a
066	Frederiskhavn Affaldskraftvarmeværk	01	010103	MUNICIP. WASTES	370380	1A1a
066	Frederiskhavn Affaldskraftvarmeværk	01	010103	GAS OIL	1260	1A1a
067	Vejen Kraftvarmeværk	01	010103	MUNICIP. WASTES	409800	1A1a
068	Bofa I/S	01	010203	MUNICIP. WASTES	189372	1A1a
068	Bofa I/S	01	010203	RESIDUAL OIL	561	1A1a
069	DTU	01	010104	NATURAL GAS	1325022	1A1a
070	Næstved Kraftvarmeværk	01	010104	NATURAL GAS	446555	1A1a
071	Maricogen	01	030104	NATURAL GAS	2249317	1A2f
072	Hjørring KVV	01	010104	NATURAL GAS	1473666	1A1a

Table 12 Large point sources, plant specific emissions (CRF 1A1, 1A2 and 1A4)

lps_id	lps_name	part_id	snap_id	ipcc_id	SO_2 [Mg]	NO_x [Mg]	NMVOC [Mg]	CO [Mg]
001	Amagervaerket	01	010101	1A1a	x	x		
		02	010101	1A1a	x	x		
		03	010101	1A1a	x	x		
002	Svanemoellevaerket	05	010101	1A1a		x		
		07	010104	1A1a		x		
003	H.C.Oerstedsvaerket	03	010101	1A1a	x	x		
		05	010101	1A1a	x	x		
		07	010101	1A1a	x	x		
004	Kyndbyvaerket	21	010101	1A1a	x	x		
		22	010101	1A1a	x	x		
		26	010101	1A1a	x	x		
		28	010101	1A1a	x	x		
		41	010105	1A1a	x	x		
		51	010104	1A1a	x	x		
		52	010104	1A1a	x	x		
005	Masnedoevaerket	12	010102	1A1a	x	x		
		31	010104	1A1a	x	x		
007	Stigsnaesvaerket	01	010101	1A1a	x	x		
		02	010101	1A1a	x	x		
008	Asnaesvaerket	02	010101	1A1a	x	x		
		03	010101	1A1a	x	x		
		04	010101	1A1a	x	x		
		05	010101	1A1a	x	x		
009	Statoil Raffinaderi	01	010306	1A1b	x			
010	Avedoerevaerket	01	010101	1A1a	x	x		
		02	010104	1A1a	x	x		
011	Fynsvaerket	03	010101	1A1a	x	x		
		07	010101	1A1a	x	x		
		08	010101	1A1a	x	x		x
012	Studstrupvaerket	03	010101	1A1a	x	x		

		04	010101	1A1a	x	x		
014	Vendsysselvaerket	03	010101	1A1a	x	x		
017	Shell Raffinaderi	01	010306	1A1b	x	x		
		05	010304	1A1b		x		
018	Skaerbaekvaerket	01	010101	1A1a	x	x		
		03	010101	1A1a	x	x		
019	Enstedvaerket	03	010101	1A1a	x	x		
		04	010101	1A1a	x	x		
020	Esbjergvaerket	03	010101	1A1a	x	x		
022	Oestkraft	06	010102	1A1a	x	x		
024	Dansk Naturgas Behandlingsanlaeg	01	010502	1A1c		x		
025	Horsens Kraftvarme-vaerk	01	010102	1A1a	x	x		x
		02	010104	1A1a		x		
026	Herningvaerket	01	010102	1A1a	x	x		
027	Vestforbraendingen	01	010102	1A1a	x	x		x
		02	010102	1A1a	x	x		x
028	Amagerforbraendingen	01	010102	1A1a	x	x		x
029	Randersvaerket	01	010102	1A1a	x	x		
030	Grenaavaerket	01	010102	1A1a	x	x		
031	Hilleroedvaerket	01	010104	1A1a		x		
032	Helsingoervaerket	01	010104	1A1a		x		
034	Stora Dalum	01	030102	1A2f		x		
035	Assens Sukkerfabrik	01	030102	1A2f	x			
036	Kolding Kraftvarmevaerk	01	010103	1A1a	x			x
		02	010103	1A1a	x			x
037	Maabjergvaerket	02	010102	1A1a	x	x	x	x
038	Soenderborg Kraftvarmevaerk	01	010102	1A1a	x	x		x
		02	010104	1A1a		x		
039	Kara Affalds-forbraendingsanlaeg	01	010102	1A1a	x			x
040	Viborg Kraftvarmevaerk	01	010104	1A1a		x		
042	Nordforbraendingen	01	010102	1A1a	x			x
045	Aalborg Portland	01	030311	1A2f	x	x		x
046	Aarhus Nord	01	010102	1A1a	x			
		02	010102	1A1a	x			
047	Reno Nord	01	010103	1A1a	x			x
048	Silkeborg Kraftvarmevaerk	01	010104	1A1a		x		
049	Rensningsanlægget Lynetten	01	020103	1A4a	x			
050	I/S Fasan	01	010203	1A1a	x	x		x
051	AVV Forbrændingsanlæg	01	010103	1A1a	x			
053	Svendborg Kraftvarmeværk	01	010102	1A1a	x	x		x
054	Kommunekemi	02	010102	1A1a	x			x
		03	010102	1A1a	x			x
055	I/S Fælles Forbrænding	01	010203	1A1a	x			x
056	Vestfyns Forbrænding	01	010203	1A1a	x	x		x
058	I/S Reno Syd	01	010103	1A1a	x		x	x
059	I/S Kraftvarmeværk Thisted	01	010103	1A1a	x			x
060	Knudmoseværket	01	010103	1A1a	x			x
061	Kavo I/S Energien	01	010103	1A1a	x		x	x
062	VEGA	01	010203	1A1a	x	x		x
063	Hadsund Bys Fjernvarmeværk	01	010203	1A1a	x			x
064	Aars Fjernvarmeforsyning	01	010103	1A1a	x			x
065	Haderslev Kraftvarmeværk	01	010103	1A1a	x	x		x
066	Frederiskhavn Affaldskraftvarmeværk	01	010103	1A1a	x	x		x
067	Vejen Kraftvarmeværk	01	010103	1A1a	x	x		x
068	Bofa I/S	01	010203	1A1a	x			x
069	DTU	01	010104	1A1a		x		
070	Næstved Kraftvarmeværk	01	010104	1A1a		x		
071	Maricogen	01	030104	1A2f		x		
072	Hjørring KVV	01	010104	1A1a		x		
	Total				**11674,87**	**44889,83**	**11,64**	**3397,99**

Appendix 4.3 Fuel rate

fuel	fuel_gr_abbr	ipcc_id	rate_TJ
102	STEAM COAL	1A1a	163987
102	STEAM COAL	1A2f	10181
102	STEAM COAL	1A4b	49
102	STEAM COAL	1A4c	1234
110	PETROLEUM COKE	1A2f	7785
110	PETROLEUM COKE	1A4a	12
110	PETROLEUM COKE	1A4b	262
110	PETROLEUM COKE	1A4c	3
111	WOOD AND SIMIL.	1A1a	6135
111	WOOD AND SIMIL.	1A2f	6150
111	WOOD AND SIMIL.	1A4a	633
111	WOOD AND SIMIL.	1A4b	14102
111	WOOD AND SIMIL.	1A4c	198
114	MUNICIP. WASTES	1A1a	32114
114	MUNICIP. WASTES	1A2f	795
114	MUNICIP. WASTES	1A4a	128
117	AGRICUL. WASTES	1A1a	8856
117	AGRICUL. WASTES	1A2f	0
117	AGRICUL. WASTES	1A4a	0
117	AGRICUL. WASTES	1A4b	2901
117	AGRICUL. WASTES	1A4c	1940
118	SEWAGE SLUDGE	1A2f	0
121	OTHER SOL. FUEL	1A1a	32114
121	OTHER SOL. FUEL	1A2f	795
121	OTHER SOL. FUEL	1A4a	128
203	RESIDUAL OIL	1A1a	8689
203	RESIDUAL OIL	1A1b	1670
203	RESIDUAL OIL	1A2f	7852
203	RESIDUAL OIL	1A4a	203
203	RESIDUAL OIL	1A4b	27
203	RESIDUAL OIL	1A4c	1651
204	GAS OIL	1A1a	1600
204	GAS OIL	1A2f	3505
204	GAS OIL	1A4a	4781
204	GAS OIL	1A4b	31506
204	GAS OIL	1A4c	8911
205	DIESEL OIL	1A2f	9663
205	DIESEL OIL	1A4c	16958
206	KEROSENE	1A2f	26
206	KEROSENE	1A4a	80
206	KEROSENE	1A4b	159
206	KEROSENE	1A4c	24
208	MOTOR GASOLINE	1A2f	140
208	MOTOR GASOLINE	1A4b	1164
208	MOTOR GASOLINE	1A4c	572
215	BLACK LIQUOR	1A1a	191
215	BLACK LIQUOR	1A4c	1
225	OTHER LIQ. FUEL	1A1a	30244
301	NATURAL GAS	1A1a	80675
301	NATURAL GAS	1A1b	0
301	NATURAL GAS	1A1c	24628
301	NATURAL GAS	1A2f	42910
301	NATURAL GAS	1A4a	7578
301	NATURAL GAS	1A4b	31077
301	NATURAL GAS	1A4c	6582
303	LPG	1A1a	0
303	LPG	1A2f	2390
303	LPG	1A4a	119
303	LPG	1A4b	722
303	LPG	1A4c	19
308	REFINERY GAS	1A1b	14234
309	BIOGAS	1A1a	1748
309	BIOGAS	1A1c	29
309	BIOGAS	1A2f	110
309	BIOGAS	1A4a	982
309	BIOGAS	1A4c	178

Appendix 4.4 CO_2 emission factors for municipal waste incineration

11 April 2000
Jytte Boll Illerup
The National Environmental Research Institute
Denmark

CO_2 emission from plastic in municipal waste

In the Danish air emission inventory the emission of CO_2 from plastic in municipal waste is included in the total CO_2 emission.

The Danish Environmental Agency has estimated the content of plastic in municipality waste (C_{plast}) to be 6.4 w / w%. The energy content in plastic (E_{plast}) from one ton waste can be calculated to be:

(1) $E_{plast}(t) = C_{plast} \times H_{plast}(t)$

where $H_{plast}(t)$ is the lower heating value of plastic. It is assumed that H_{plast} equals the lower heating value of crude oil.

The emission of CO_2 from the plastic part of the waste per GJ plastic ($EMF_{,p,p}$) is

(2) $EMF_{p,p} = (C_{C,plast} \times M_{CO2}) / M_C$

where M_{CO2} is the mole weight for CO2 and M_C is the mole weight for carbon.

The emission of CO_2 from the plastic part of the waste per GJ waste ($EMF_{p,w}$) is

(3) $EMF_{p,w}(t) = EMF_{p,p} \times E_{plast} / H_{waste}(t)$

where H_{waste} is the lower heating value of waste.

Equations (1)-(3) gives:

(4) $EMF_{p,w}(t) = C_{C,plast} \times C_{plast} \times M_{CO2/MC} \times H_{plast} / H_{waste}$

Constants:
C_{plast} = 6,4 w / w% (Ref. The Danish Environmental Agency)
$C_{c,plast}$ = 20 kg carbon / GJ in plastic (Ref. IPCC Guidelines)
M_{CO2} = 44 kg / kmol
M_C = 12 kg / kmol

The values of $EMF_{p,w}$ for 1990 to 1998 used in the Danish air emission inventory are given in table 1.

Table 1 CO2-emissionfactor for plastic in municipal waste.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
H_{plast} [1)] (GJ/ton)	42,7	42,7	42,7	42,7	42,7	42,7	42,7	42,7	43	43	43	43
H_{waste} [1)] (GJ/ton)	8,2	8,2	9	9,4	9,4	10	10,5	10,5	10,4	10,5	10,5	10,5
EMFp,w (kg/GJ in waste)	24,44	24,44	22,27	21,32	21,32	20,04	19,09	19,09	19,41	19,22	19,22	19,22

1) Ref.: The Danish Energy Agency

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Municipal waste (GJ)	15,006	16,255	17,325	18,963	19,979	24,088	25,394	27,632	27,323	29,13	30,27	33,04
CO_2 emission from plastic (kton)	367	397	386	404	426	483	485	527	530	560	582	635

Appendix 4.5 CRF SNAP correspondence list

Table 13 Correspondence list of IPCC source categories 1A1, 1A2 and 1A4 and SNAP

snap_id	snap_name	ipcc_id
01	Combustion in energy and transformation industries	
0101	Public power	1A1a
010101	Combustion plants >= 300 MW (boilers)	1A1a
010102	Combustion plants >= 50 and < 300 MW (boilers)	1A1a
010103	Combustion plants < 50 MW (boilers)	1A1a
010104	Gas turbines	1A1a
010105	Stationary engines	1A1a
0102	District heating plants	1A1a
010201	Combustion plants >= 300 MW (boilers)	1A1a
010202	Combustion plants >= 50 and < 300 MW (boilers)	1A1a
010203	Combustion plants < 50 MW (boilers)	1A1a
010204	Gas turbines	1A1a
010205	Stationary engines	1A1a
0103	Petroleum refining plants	1A1b
010301	Combustion plants >= 300 MW (boilers)	1A1b
010302	Combustion plants >= 50 and < 300 MW (boilers)	1A1b
010303	Combustion plants < 50 MW (boilers)	1A1b
010304	Gas turbines	1A1b
010305	Stationary engines	1A1b
010306	Process furnaces	1A1b
0104	Solid fuel transformation plants	1A1c
010401	Combustion plants >= 300 MW (boilers)	1A1c
010402	Combustion plants >= 50 and < 300 MW (boilers)	1A1c
010403	Combustion plants < 50 MW (boilers)	1A1c
010404	Gas turbines	1A1c
010405	Stationary engines	1A1c
010406	Coke oven furnaces	1A1c
010407	Other (coal gasification, liquefaction, ...)	1A1c
0105	Coal mining, oil/gas extraction, pipeline compressors	
010501	Combustion plants >= 300 MW (boilers)	1A1c
010502	Combustion plants >= 50 and < 300 MW (boilers)	1A1c
010503	Combustion plants < 50 MW (boilers)	1A1c
010504	Gas turbines	1A1c
010505	Stationary engines	1A1c
02	Non-industrial combustion plants	
0201	Commercial and institutional plants (t)	1A4a
020101	Combustion plants >= 300 MW (boilers)	1A4a
020102	Combustion plants >= 50 and < 300 MW (boilers)	1A4a
020103	Combustion plants < 50 MW (boilers)	1A4a
020104	Stationary gas turbines	1A4a
020105	Stationary engines	1A4a
020106	Other stationary equipments (n)	1A4a
0202	Residential plants	1A4b
020201	Combustion plants >= 50 MW (boilers)	1A4b
020202	Combustion plants < 50 MW (boilers)	1A4b
020203	Gas turbines	1A4b
020204	Stationary engines	1A4b
020205	Other equipments (stoves, fireplaces, cooking,...)	1A4b
0203	Plants in agriculture, forestry and aquacultu	1A4c
020301	Combustion plants >= 50 MW (boilers)	1A4c
020302	Combustion plants < 50 MW (boilers)	1A4c
020303	Stationary gas turbines	1A4c
020304	Stationary engines	1A4c
020305	Other stationary equipments (n)	1A4c
03	Combustion in manufacturing industry	
0301	Comb. in boilers, gas turbines and stationary	1A2f
030101	Combustion plants >= 300 MW (boilers)	1A2f
030102	Combustion plants >= 50 and < 300 MW (boilers)	1A2f
030103	Combustion plants < 50 MW (boilers)	1A2f
030104	Gas turbines	1A2f
030105	Stationary engines	1A2f
030106	Other stationary equipments (n)	1A2f

0302	Proces furnaces without contact	
030203	Blast furnace cowpers	1A2a
030204	Plaster furnaces	1A2f
030205	Other furnaces	1A2f
0303	Processes with contact	
030301	Sinter and pelletizing plants	1A2a
030302	Reheating furnaces steel and iron	1A2a
030303	Gray iron foundries	1A2a
030304	Primary lead production	1A2b
030305	Primary zinc production	1A2b
030306	Primary copper production	1A2b
030307	Secondary lead production	1A2b
030308	Secondary zinc production	1A2b
030309	Secondary copper production	1A2b
030310	Secondary aluminium production	1A2b
030311	Cement (f)	1A2f
030312	Lime (includ. iron and steel and paper pulp industr.)(f)	1A2f
030313	Asphalt concrete plants	1A2f
030314	Flat glass (f)	1A2f
030315	Container glass (f)	1A2f
030316	Glass wool (except binding) (f)	1A2f
030317	Other glass (f)	1A2f
030318	Mineral wool (except binding)	1A2f
030319	Bricks and tiles	1A2f
030320	Fine ceramic materials	1A2f
030321	Paper-mill industry (drying processes)	1A2d
030322	Alumina production	1A2b
030323	Magnesium production (dolomite treatment)	1A2b
030324	Nickel production (thermal process)	1A2b
030325	Enamel production	1A2f
030326	Other	1A2f
08	Other mobile sources and machinery	
0804	Maritime activities	
080403	National fishing	1A4c
0806	Agriculture	1A4c
0807	Forestry	1A4c
0808	Industry	1A2f
0809	Household and gardening	1A4b

Appendix 4.6 Uncertainty calculations

Table 14 Uncertainty estimation, GWP

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertarinty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Gg CO2 eq	Gg CO2 eq	%	%	%	%	%	%	%	%	%
Stationary Combustion, Coal	CO2	24209	16668	1	5	5,099	2,273	-0,183	0,436	-0,916	0,617	1,104
Stationary Combustion, Petroleum coke	CO2	455	742	3	5	5,831	0,116	0,008	0,019	0,039	0,082	0,091
Stationary Combustion, Residual oil	CO2	2505	1567	2	2	2,828	0,119	-0,023	0,041	-0,046	0,116	0,125
Stationary Combustion, Gas oil	CO2	4858	3063	4	5	6,403	0,525	-0,044	0,080	-0,222	0,454	0,505
Stationary Combustion, Kerosene	CO2	366	21	4	5	6,403	0,004	-0,009	0,001	-0,044	0,003	0,044
Stationary Combustion, Orimulsion	CO2	0	2419	1	2	2,236	0,145	0,063	0,063	0,127	0,090	0,155
Stationary Combustion, Natural gas	CO2	4330	11075	3	1	3,162	0,937	0,179	0,290	0,179	1,230	1,243
Stationary Combustion, LPG	CO2	148	55	4	5	6,403	0,009	-0,002	0,001	-0,012	0,008	0,014
Stationary Combustion, Refinery gas	CO2	806	813	3	5	5,831	0,127	0,001	0,021	0,003	0,090	0,090
Stationary combustion plants, gas engines	CH4	5	443	2,2	40	40,060	0,475	0,011	0,012	0,459	0,036	0,460
Stationary combustion plants, other	CH4	110	137	2,2	100	100,024	0,365	0,001	0,004	0,076	0,011	0,077
Stationary combustion plants	N2O	396	391	2,2	1000	1000,002	10,451	0,000	0,010	0,071	0,032	0,078
Total		38189	37394				115,965					3,302

Total uncertainties	**Overall uncertainty i the year (%):**	**10,769**	**Trend uncertainty (%):**	**1,817**

Table 15 Uncertainty estimation, CO_2

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor unceratinty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Unceratinty i trend in national emissions introduced by emission factor uncertarinty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Gg CO2	Gg CO2	%	%	%	%	%	%	%	%	%
Stationary Combustion, Coal	CO2	24209	16668	1	5	5,099	2,333	-0,178	0,442	-0,888	0,626	1,086
Stationary Combustion, Petroleum coke	CO2	455	742	3	5	5,831	0,119	0,008	0,020	0,040	0,084	0,093
Stationary Combustion, Residual oil	CO2	2505	1567	2	2	2,828	0,122	-0,023	0,042	-0,045	0,118	0,126
Stationary Combustion, Gas oil	CO2	4858	3063	4	5	6,403	0,539	-0,043	0,081	-0,216	0,460	0,508
Stationary Combustion, Kerosene	CO2	366	21	4	5	6,403	0,004	-0,009	0,001	-0,044	0,003	0,044
Stationary Combustion, Orimulsion	CO2	0	2419	1	2	2,236	0,149	0,064	0,064	0,128	0,091	0,157
Stationary Combustion, Natural gas	CO2	4330	11075	3	1	3,162	0,962	0,183	0,294	0,183	1,247	1,260
Stationary Combustion, LPG	CO2	148	55	4	5	6,403	0,010	-0,002	0,001	-0,012	0,008	0,014
Stationary Combustion, Refinery gas	CO2	806	813	3	5	5,831	0,130	0,001	0,022	0,004	0,092	0,092
Total	CO2	37678	36423				6,727					3,087

Total uncertainties	**Overall uncertainty i the year (%):**	**2,594**	**Trend uncertainty (%):**	**1,757**

Table 16 Uncertainty estimation, CH_4

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Mg CH4	Mg CH4	%	%	%	%	%	%	%	%	%
Stationary combustion plants, gas engines	CH4	237	21096	2,2	40	40,060	30,622	3,640	3,860	145,586	12,010	146,081
Stationary combustion plants, other	CH4	5228	6502	2,2	100	100,024	23,566	-3,607	1,190	-360,673	3,702	360,692
Total	CH4	5465	27598				1493,06					151439
Total uncertainties			**Overall uncertainty i the year (%):**				**38,640**		**Trend uncertainty (%):**			**389,151**

Table 17 Uncertainty estimation, N_2O

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Gg N2O	Gg N2O	%	%	%	%	%	%	%	%	%
Stationary combustion plants	N2O	1,279	1,261	2,200	1000,000	1000,002	1000,002	0,000	0,986	0,000	3,068	3,068
Total	N2O	1,279	1,261				1000005					9,411
Total uncertainties			**Overall uncertainty i the year (%):**				**1000,002**		**Trend uncertainty (%):**			**3,068**

Table 18 Uncertainties of fuel consumption rates

Source	Mainly combusted in sector 1)	Uncertainty
Stationary Combustion, Coal	Public power, cogeneration and district heating	1%
Stationary Combustion, Petroleum coke	Industrial combustion	3%
Stationary Combustion, Residual oil	Public power, cogeneration and district heating Industrial combustion	2%
Stationary Combustion, Gas oil	Commercial, institutional, residential combustion	4%
Stationary Combustion, Kerosene	Commercial, institutional, residential combustion	4%
Stationary Combustion, Orimulsion	Public power, cogeneration and district heating	1%
Stationary Combustion, Natural gas	Public power, cogeneration and district heating Industrial combustion Commercial, institutional, residential combustion	3%
Stationary Combustion, LPG	Commercial, institutional, residential combustion	4%
Stationary Combustion, Refinery gas	Public power, cogeneration and district heating Industrial combustion	3%
Biomass:		
Stationary Combustion, biomass in domestic plants	Biomass in small sources	30%

1) Sectors defined in table 2.6 of GPG

Table 19 Background data to determine combined fuel rate uncertainty

fuel	fuel	Rate 2001	Uncertainty
102	coal	175451125	1
110	Petroleum coke	8062464	3
111	Wood	27217801	30
114	Municipal waste	33037670	20
117	Straw	13698057	20
203	Residual oil	20093058,05	2
204	Gas oil	41395271	4
206	Kerosene	286786	4
215	Liquid bio fuel	191475	20
225	Orimulsion	30243687	1
301	Natural gas	193449630,7	3
303	LPG	852741	4
308	Refinery gas	14233595	3
309	Biogas	3046907	20
SUM		561260267,8	
Combined uncertainty:	**2,0**		

Table 20 CH_4 from gas engines 2001

snap_id	fuel_id	asrat_val	emfa_val	uni_abbr	AS_EMIS	EMIS	
010105	301A	28098555	573	g	16100472015	16100	
010105	309A	1589322	434	g	689765748	690	
010405	301A	0	573	g	0	0	
010405	309A	0	434	g	0	0	
010505	301A	11887	573	g	6811251	7	
010505	309A	28627	434	g	12424118	12	
020105	301A	1048143	573	g	600585939	601	
020105	309A	501385	434	g	217601090	218	
020204	301A	1450266	573	g	831002418	831	
020304	301A	2859644	573	g	1638576012	1639	
020304	309A	108819	434	g	47227446	47	
030105	301A	1641970	573	g	940848810	941	
030105	309A	23805	434	g	10331370	10	
						21096	**Mg**

Table 21 CH_4 from gas engines 1990

snap_id	fuel_id	asrat_val	emfa_val	uni_abbr	AS_EMIS	EMIS	
010105	301A	313500	573	g	179635500	179,6355	
010505	301A	4900	573	g	2807700	2,8077	
020105	301A	26200	573	g	15012600	15,0126	
020204	301A	0	573	g	0	0	
020304	301A	66300	573	g	37989900	37,9899	
030105	301A	2600	573	g	1489800	1,4898	
						236,9355	**Mg**

Appendix 5

Fugitive emissions from fuels

15 April 2003

Appendix 5 Fugitive emissions from fuels

Methodology and references

Fugitive emissions from solid fuels (1.B.1.c)

Storage and handling of coal:
Coal mining is not occurring in Denmark, but power plants use a considerable amount of coal. CH_4 emission from storage and handling of coal is included in the Danish inventory.

The CH_4 emission inventory is based on tier 1 in *IPCC Guidelines for National Greenhouse Gas Inventories: Reference Manual*. The CH_4 emission occurring in Denmark is assumed to be half the post-mining emission.

Coal import refers to the official Danish energy statistics. In inventories for the years 1990-1999 country of origin of the imported coal and underground fraction of each country is taken into account. The emission factor from the 1999 inventory have been applied to the 2000 and 2001 inventories.

Table 1 CH_4 emission factor of coal storage and handling in Denmark

Year	Emission factor 1)	Unit
1990	336	g/Mg coal imported
1991	310	g/Mg coal imported
1992	327	g/Mg coal imported
1993	458	g/Mg coal imported
1994	477	g/Mg coal imported
1995	485	g/Mg coal imported
1996	485	g/Mg coal imported
1997	485	g/Mg coal imported
1998	430	g/Mg coal imported
1999	474	g/Mg coal imported
2000	474	g/Mg coal imported
2001	474	g/Mg coal imported

1) ½ of total post mining emission factor

Fugitive emissions from natural gas (1.B.2.b)

Natural gas transmission and distribution:
Inventories of CH_4 emission from gas transmission and distribution is based on annual environmental reports from the Danish gas transmission company, DONG and on a Danish inventory for the years 1999-2001 reported by the Danish gas sector (transmission and distribution companies). The inventories from the Danish gas sector for the years 1999-2001 are based on the work carried out by Marcogas and the International Gas Union (IGU).

In 1990-1999 fugitive CH_4 emissions from storage facilities and the gas treatment plant are included in the transmission emission factor below. In 2000-2001 they are registered separately and added.

Table 2 CH_4 emission from natural gas transmission

TRANSMISSION		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Transmission rate Mm^3	1)	2739	3496	3616	3992	4321	4689	5705	6956	6641	6795	7079	7289
CH_4 emission Mg	2)		310	93	186	151	536	183	235	156	191	86	157
CH_4 IEF kg/Mm^3	3)	88,619	88,619	25,653	46,642	34,981	114,272	36,000	33,784	23,490	28,109	12,149	21,539

1) In 1990-1997 transmission rates refers to Danish energy statistics, in 1998 transmission rate refers to the annual environmental report of DONG, in 1999-2001 emissions refers to DONG/Danish Gas Technology Centre
2) In 1991-95 CH4 emissions are based on the annual environmental report from DONG for the year 1995. In 1996-99 the CH4 emission refers to the annual environmental reports from DONG for the years 1996-99. In 2000-2001 the CH4 emission refers to DONG/Danish Gas Technology Centre
3) IEF=Emission/transmission_rate. In 1990 the IEF is assumed to be the same as in 1991

Table 3 Additional fugitive CH_4 emissions from natural gas storage facilities and venting in gas treatment plant

	2000	2001
Gas treatment plant	7,55 Mg	0 Mg
Gas storage facilities	76,48 Mg	72,68 Mg

Table 4 CH_4 emission from natural gas distribution

DISTRIBUTION		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Distribution rate Mm^3	1)	1574	1814	1921	2185	2362	2758	3254	3276	3403	3297	3181	3675
CH_4 emission Mg	2)										43	49	56
CH_4 IEF kg/Mm^3	3)	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	14,561	13,042	15,404	15,238

1) In 1999-2001 distribution rates refers to DONG / Danish Gas Technology Centre / Danish gas distribution companies, In 1990-98 distribution rates are estimated from the Danish energy statistics. Distribution rates are assumed to equal total Danish consumption rate minus the consumption rates of sectors that receive the gas at high pressure. The following consumers are assumed to receive high pressure gas: Town gas production companies, production platforms and power plants
2) Danish Gas Technology Centre / DONG/ Danish gas distribution companies
3) In the years 1999-2001 IEF=CH_4 emission / distribution rate. In 1990-1998 an average IEF of 1999-2001 is assumed.

In the data transfer, from the Danish emission database to the CRF, CH_4 emission from gas transmission and distribution have unintentionally been added. Thus CH_4 from both transmission and distribution have been included in the CRF source category *Transmission*. The activity data stated in the CRF table is misleading, please refer to the distribution and transmission data above. The error will be corrected in future inventories.

In the year 2001 the length of transmission pipelines including offshore pipeline is 1439 km. The length of distribution pipelines is 19550 km (cast iron 0 km, steel 2442 km, plastics 17108 km). Two natural gas storages are in operation in Denmark. In 2001 the gas input was 399 Mm^3 and the withdrawal was 491 Mm^3.
Off-shore activities - Production of oil and gas (CRF: 1.B.2.b SNAP: 050303):
The emissions of VOC from offshore activities have been estimated to be about 2000 tons / year, of this 350 tons / year NMVOC and 1630 tons / year CH_4. The estimates are made from 1994 to 2001 and the uncertainty of the emission data is very high. A project is going on to make consistence emission inventories from 1990 to 2001 for oil and gas production including emissions from gas terminals and ships. Emissions from flaring are included in 'Stationary combustion plants', Appendix 4.

Fugitive emissions from oil (1.B.2.a)

Oil Refineries - Petroleum products processing:
In the production process at the refineries a part of the volatile hydrocarbons (VOC) is emitted to the atmosphere. It is assumed that CH_4 accounts for 1 % and NMVOC for 99% of the emissions. The VOC emissions from petroleum refinery processes cover non-combustion emissions from feed stock handling / storage, petroleum products processing, product storage / handling and flaring.

SO_2 is also emitted from the non-combustion processes and includes emissions from products processing and sulphur recovery plants. The emission calculations are based on information form the Danish refineries and the Energy statistic (Table 6).

Recalculation and changes

Coal mining and handling
The coal import 1990-2000 has been recalculated based on the new energy statistics.

Natural gas
The CH_4 emission from transmission and distribution has been recalculated. Both emission factors and activity rates have been updated according to new knowledge.

Uncertainty

Estimation of uncertainty is based on the Tier 1 methodology in IPCC Good Practice Guidance (GPG) /2/. The uncertainty of greenhouse gas emissions and the uncertainty of total Global Warming Potential (GWP) is shown in Table 5.

Table 5 Uncertainty of greenhouse gases

Pollutant	Uncertainty of emission inventory [%]	Uncertainty of emission trend [%]
CO_2	16	56
CH_4	80	102
N_2O	52	56
GWP	**22**	**73**

The uncertainty of activity rate (coal import) for fugitive emissions from solid fuels is assumed to be 2% referring to GPG page 2.77. The uncertainty of the post mining emission factor is assumed to be 200% also referring to GPG.

Uncertainty of activity rates for oil and gas activities is 15% referring to GPG page 2.92. The uncertainty of emissions factors for CO_2 is the uncertainty of emissions factors for flaring. This emission factor uncertainty is 5% (GPG page 2.15). Uncertainties of CH4 and N2O emission factors are both assumed to be 50%.

Table 6 Uncertainty of activity rates and emission factors

	Uncertainty Activity rate	Uncertainty Emission factor
Solid fuel, CO_2	2	200
Oil and gas, CO_2	15	5
Oil and gas, CH_4	15	50
Oil and gas, N_2O	15	50

Table 6. Oil Refineries. Processed crude oil, emissions and emission factors:

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Crude oil (1000 Mg)	7263	7798	8232	8356	8910	9802	10522	7910	7906	8106	8406	8284
CH4 emission (Mg)	37	39	42	43	57	48	62	45	45	45	50	44
CH4 emission factor (g/Mg)	5,094314	5,001282	5,102041	5,146003	6,397306	4,89696	5,892416	5,689001	5,69188	5,551443	5,948132	5,311444
NMVOC emission (Mg)	3667	3937	4203	4219	5855	4546	5875	4547	4558	4558	4983	4338
NMVOC emission factor (g/Mg)	504,8878	504,873	510,5685	504,9067	657,1268	463,7829	558,3539	574,842	576,5242	562,2995	592,7909	523,6601

Appendix 6

Transport

Appendix 6 Transport

The emissions from transport referring to SNAP category 07 (road transport) and the sub-categories in 08 (other mobile sources) are made up in the following IPCC categories:

Table 1 Inventory sub-categories for transport according to SNAP and CRF classification

SNAP classification	CRF classification
07 Road transport	1A3b Transport-Road
0801 Military	1A5 Other
0802 Railways	1A3c Railways
0803 Inland waterways	1A3d Transport-Navigation
080402 National sea traffic	1A3d Transport-Navigation
080403 National fishing	
080404 International sea traffic	
080501 Dom. airport traffic (LTO < 1000 m)	1A3a Transport-Civil aviation
080502 Int. airport traffic (LTO < 1000 m)	1A3a Transport-Civil aviation (international)
080503 Dom. cruise traffic (> 1000 m)	1A3a Transport-Civil aviation
080504 Int. cruise traffic (> 1000 m)	1A3a Transport-Civil aviation (international)
0806 Agriculture	1A4c Agriculture/forestry/fisheries
0807 Forestry	1A4c Agriculture/forestry/fisheries
0808 Industry	1A2f Industry-Other
0809 Household and gardening	1A4b Residential

1. Methodology and references for Road Transport

For road transport the Tier 1 and Tier 2 approaches are used in parallel to make annual estimates of the Danish emissions as described in the GPG guidelines (Penman et al. (2000). The actual calculations are made with the European COPERT III model (Ntziachristos et al. 2000). In COPERT III fuel use and emission simulations can be made for operationally hot engines taking into account gradually stricter emission standards and emission degradation due to catalyst wear. Furthermore the emission effects of cold start and evaporation are simulated.

1.1. Vehicle fleet and mileage data

Corresponding to the COPERT fleet classification all present and future vehicles in the Danish traffic are grouped into vehicle layers. This is a sub-division of all vehicle classes into groups of vehicles with the same average fuel use and emission behaviour. An overview of the different layers with years of implementation is given in annex 1.

Table 2 Model vehicle classes, trip speeds and mileage split.

Vehicle classe	Fuel type	Engine size/weight	Trip speed (km/h)			Mileage [%]		
			Urban	Rural	Highway	Urban	Rural	Highway
PC	Gasoline	< 1.4 l.	40	70	100	35	46	19
PC	Gasoline	1.4 – 2 l.	40	70	100	35	46	19
PC	Gasoline	> 2 l.	40	70	100	35	46	19
PC	Diesel	< 2 l.	40	70	100	35	46	19
PC	Diesel	> 2 l.	40	70	100	35	46	19
PC	LPG		40	70	100	35	46	19
PC	2-stroke		40	70	100	35	46	19
LDV	Gasoline		40	65	80	35	50	15
LDV	Diesel		40	65	80	35	50	15
Trucks	Gasoline		35	60	80	32	47	21
Trucks	Diesel	3.5 – 7.5 tonnes	35	60	80	32	47	21
Trucks	Diesel	7.5 – 16 tonnes	35	60	80	32	47	21
Trucks	Diesel	16 – 32 tonnes	35	60	80	19	45	36
Trucks	Diesel	> 32 tonnes	35	60	80	19	45	36
Urban buses	Diesel		30	50	70	51	41	8
Coaches	Diesel		35	60	80	32	47	21
Mopeds	Gasoline		30	30	-	81	19	0
Motorcycles	Gasoline	2 stroke	40	70	100	47	39	14
Motorcycles	Gasoline	< 250 cc.	40	70	100	47	39	14
Motorcycles	Gasoline	250 – 750 cc.	40	70	100	47	39	14
Motorcycles	Gasoline	> 750 cc.	40	70	100	47	39	14

From the Danish Road Directorate information of the vehicle stock and annual mileage is obtained. This covers data for the number of vehicles, annual mileage, mileage split between urban, rural and highway driving and the respective average speeds.

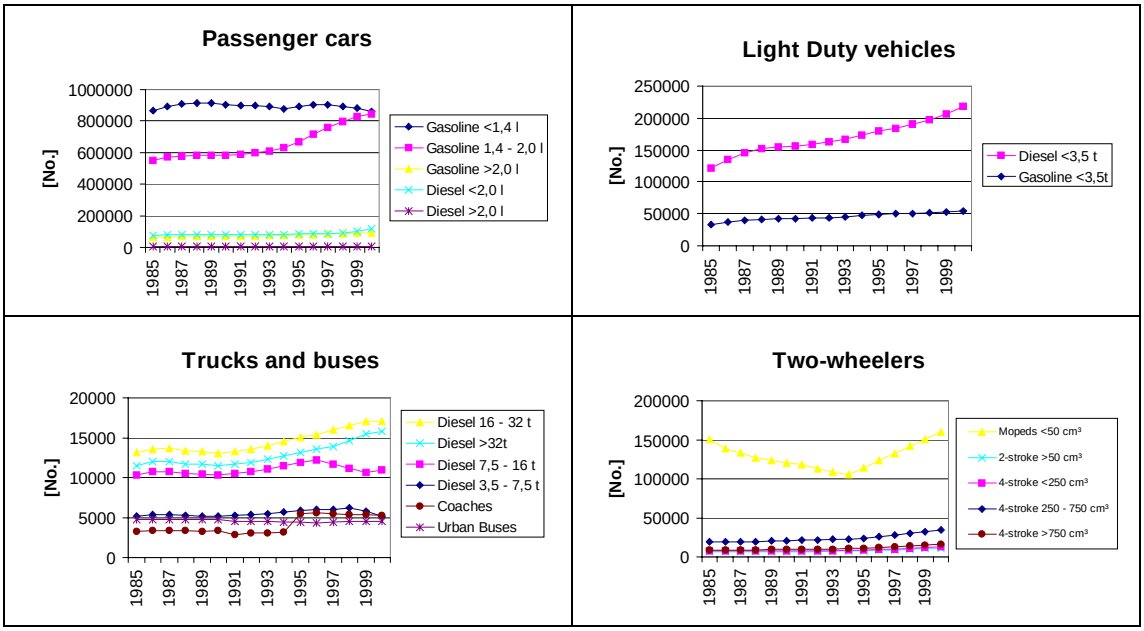

Figure 1 No. of vehicles in sub-classes in 1985-2001

The number of vehicles and annual mileages respectively, are provided per first registration year for all vehicle sub-classes. Subsequently the vehicle numbers are summed up in layers, j, for each year, y, by using the correspondence between layers and first registration year, i:

$$N_{j,y} = \sum_{i=FYear(j)}^{LYear(j)} N_{i,y} \quad (1)$$

Weighted annual mileages per layer are calculated as the sum of all mileage driven per first registration year divided with the total number of vehicles in the specific layer.

$$M_{j,y} = \frac{\sum_{i=FYear(j)}^{LYear(j)} N_{i,y} \cdot M_{i,y}}{\sum_{i=FYear(j)}^{LYear(j)} N_{i,y}} \quad (2)$$

Both vehicle numbers and weighted annual mileages per layer are shown in annex 1.

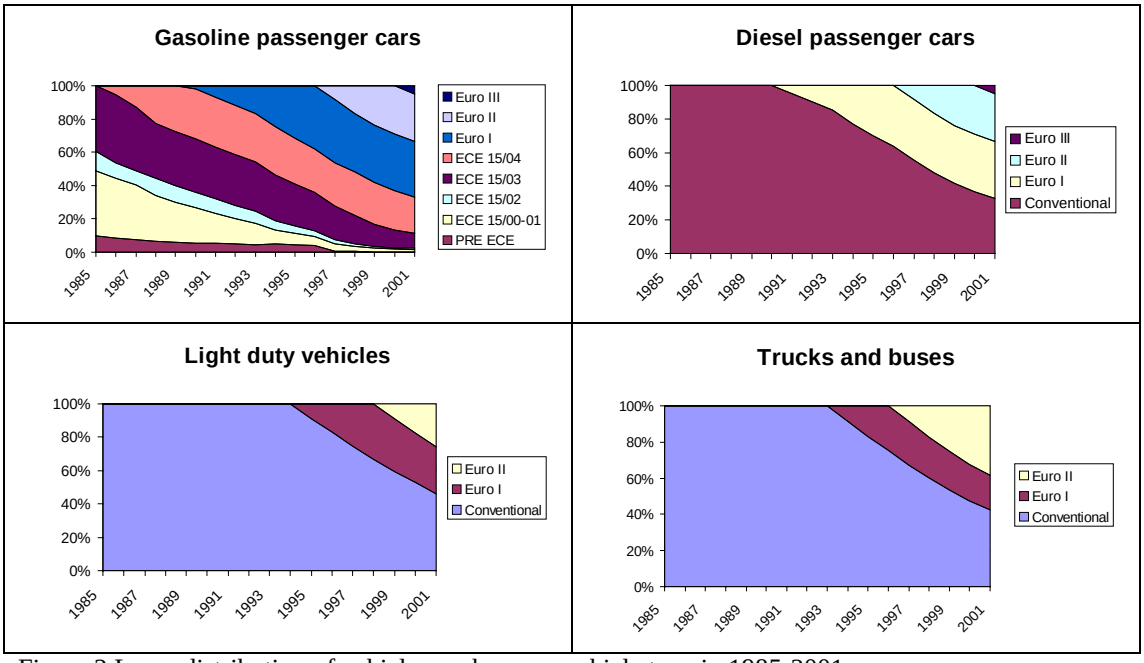

Figure 2 Layer distribution of vehicle numbers per vehicle type in 1985-2001

Trip speed dependent fuel use and emission factors are taken from the COPERT model using trip speeds as shown in table 2. The factors are listed in annex 2. For new layers not represented by actual data, the emission factors are scaled according to reduction factors, see Ntziachristos et al. (2000) or Illerup et al. (2002).

1.2. Deteoriation factors

For three-way catalyst cars the emissions of NO_x and NMVOC (and CO) gradually increase due to catalyst wear and are therefore modified as a function of total mileage by the so-called deteoriation factors. Even though the emission curves may be serrated for the individual vehicles, on average the emissions from catalyst cars stabilise after a given cut-off mileage is reached due to OBD (On Board Diagnostics) and the Danish inspection and maintenance programme. For each forecast year the deteoriation factors are calculated per first registration year by using deteoriation coefficients and cut-off mileages as given in Ntziachristos et al. (2000) or Illerup et al. (2002) for the corresponding layer. The deteoriation coefficients are given for the two driving cycles ”Urban driving Cycle” (UDF) and ”Extra Urban driving Cycle” (EUDF: urban and rural), with trip speeds of 19 and 63 km/h, respectively.

Firstly the deteoriation factors are calculated for the correspondent trip speeds of 19 and 63 km h-1 in each case determined by the total cumulated mileage less than or exceeding the cut-off mileage. The formulas 3 and 4 show the calculations for the ”Urban driving Cycle”:

$$UDF = U_A \cdot MTC + U_B \text{, MTC} < U_{MAX} \quad (3)$$

$$UDF = U_A \cdot U_{MAX} + U_B \text{, MTC} >= U_{MAX} \quad (4)$$

Where UDF is the urban detoriation factors, UA and UB the urban deteoriation coefficients, MTC = total cumulated mileage, U_{MAX} urban cut-off mileage.

In the case of trip speeds below 19 km h-1 the deteoriation factor, DF, equals UDF, whereas for trip speeds exceeding 63 km h-1 DF=EUDF. For trip speeds between 19 and 63 km h-1 the deteoriation factor, DF, is found as an interpolation between UDF and EUDF. Secondly the deteoriation factors, one for each of the three road types, are aggregated into layers by taking into account the vehicle numbers and annual mileages per first registration year:

$$DF_{j,y} = \frac{\sum_{i=FYear(j)}^{LYear(j)} DF_{i,y} \cdot N_{i,y} \cdot M_{i,y}}{\sum_{i=FYear(j)}^{LYear(j)} DF_{i,y} \cdot N_{i,y}} \quad (5)$$

Where DF is the deteoriation factor.

1.3. Emissions and fuel use for hot engines

Emissions and fuel use results for operationally hot engines are calculated for each year and layer and road type. The procedure is to combine fuel use and emission factors (and deteoriation factors for catalyst vehicles), number of vehicles annual mileage numbers and their road type shares given in table 1. For non-catalyst vehicles this yields:

$$E_{j,k,y} = EF_{j,k,y} \cdot S_k \cdot N_{j,y} \cdot M_{j,y} \quad (6)$$

Here E = fuel use/emission, EF = fuel use/emission factor, S = road type share, k = road type.

For catalyst vehicles the calculations becomes:

$$E_{j,k,y} = DF_{j,k,y} \cdot EF_{j,k,y} \cdot S_k \cdot N_{j,y} \cdot M_{j,y} \quad (7)$$

1.4. Extra emissions and fuel use for cold engines

Extra emissions of SO_2, NO_x and NMVOC (as well as CO, PM, CH_4, CO_2 and FC) from cold start are simulated separately. In the model each trip is associated with an amount of cold start emission and is assumed to take place under urban driving conditions. The number of trips are distributed evenly in months. Firstly cold emission factors are calculated as the hot emission factor times the cold:hot emission ratio. Secondly the extra emission factor during cold start is found by subtracting the hot emission factor from the cold emission factor. Lastly this extra factor is applied on the fraction of the total mileage driven with a cold engine (the β-factor) for all vehicles in the specific layer.

The cold:hot ratios depend on the average trip length and the monthly ambient temperature distribution and are equivalent for gasoline fuelled conventional passenger cars and vans and for diesel passenger cars and vans, respectively, see Ntziachristos et al. (2000). For conventional gasoline and all diesel vehicles the extra emissions become:

$$CE_{j,y} = \beta \cdot N_{j,y} \cdot M_{j,y} \cdot EF_{U,j,y} \cdot (CEr - 1) \quad (8)$$

Where CE is the cold extra emissions, β = cold driven fraction, CEr = Cold:Hot ratio.

For catalyst cars the cold:hot ratio is also trip speed dependent. The ratio is however unaffected by catalyst wear. The EURO I ratio is used for all future catalyst technologies. However, in order to comply with gradually stricter emission standards the catalyst light-off temperature must be reached in even shorter time periods for future EURO standards. Correspondingly the β-factor for gasoline vehicles is step-wise reduced for EURO II onwards.

For catalyst vehicles the cold extra emissions are found from:

$$CE_{j,y} = \beta_{red} \cdot \beta_{EUROI} \cdot N_{j,y} \cdot M_{j,y} \cdot EF_{U,j,y} \cdot (CEr_{EUROI} - 1) \quad (9)$$

Where β_{red} = the β reduction factor.

1.5. Evaporative emissions from gasoline vehicles

For each year evaporative emissions of hydrocarbons are simulated in the forecast model as hot and warm running loss, hot and warm soak, and diurnal emissions. All emission types are influenced by RVP (Reid Vapour Pressure) and ambient temperature. The emission factors are shown in Ntziachristos et al. (2000).

Running loss emissions originate from vapour generated in the fuel tank during operation. The destinction between hot and warm running loss emissions depend on the engine temperature. In the model hot and warm running loss occur for hot and cold engines, respectively. The emissions are calculated as the annual mileage – broken down on cold and hot mileage totals using the β-factor - times respective emission factors. For vehicles equipped with evaporation control (catalyst cars) the emission factors are only one tenth of the uncontrolled factors used by conventional gasoline vehicles.

$$R_{j,y} = N_{j,y} \cdot M_{j,y} \cdot ((1-\beta) \cdot HR + \beta \cdot WR) \quad (10)$$

Where R is the running loss emissions and HR and WR the hot and warm running loss emission factors, respectively.

In the model hot and warm soak emissions for carburettor vehicles also occurs for hot and cold engines, respectively. These emissions are calculated as number of trips – broken down into cold and hot trip numbers using the β-factor - times respective emission factors:

$$S_{j,y}{}^{C} = N_{j,y} \cdot \frac{M_{j,y}}{l_{trip}} \cdot ((1-\beta) \cdot HS + \beta \cdot WS) \quad (11)$$

Where S^C is the soak emissions, ltrip = the average trip length and HS and WS is the hot and warm soak emission factors, respectively. Since all catalyst vehicles are assumed to be carbon canister controlled no soak emissions are estimated for this vehicle type. Average maximum and minimum temperatures per month are used in combination with diurnal emission factors to estimate the diurnal emissions from uncontrolled vehicles $E^d(U)$:

$$E_{j,y}{}^{d}(U) = 365 \cdot N_{j,y} \cdot e^{d}(U) \quad (12)$$

Each forecast year's total is the sum of each layer's running loss, soak and diurnal emissions.

1.6. Fuel use balance

The calculated fuel use in the model must equal the statistical fuel sale totals from the Danish Energy Agency (DEA) according to the UNFCCC emissions reporting format. The standard approach to achieve a fuel balance in annual emission inventories is to multiply the annual mileage with a fuel balance factor derived as the ratio between simulated and statistical fuel figures for gasoline and diesel, respectively. This method is also used in the present model.

For gasoline vehicles all mileage numbers are equally scaled in order to obtain a gasoline fuel equilibrium. For diesel fuel the balance is made by adjusting the mileage for light and heavy duty vehicles and buses, given that the mileage and fuel consumption factors for these vehicles are regarded as the most uncertain parameters in the diesel engine emission simulations.

The final fuel use and emission factors are shown in annex 3. The total fuel use and emissions are shown in annex 4 and 5 per vehicle category and as grand totals, respectively.

2. Methodologies and references for other mobile sources

The off road sector is divided into several sub-sectors; sea transport, fishery, air traffic, railways, military and the working machinery and materiel in the industry, forestry, agriculture and household and gardening sectors. The emission calculations are made using the Tier 2 method for air traffic and off road working machinery and equipment, while for the remaining sectors the Tier 1 method is used.

2.1. Activity data

The activity data for air traffic consist of air traffic statistics provided by the Danish Civil Aviation Agency (CAA-DK) and Copenhagen Airport. For 2001 records are given per flight by CAA-DK as data for aircraft type and origin and destination airports. Prior to 2001 detailed LTO/aircraft type statistics are provided by Copenhagen Airport (for this airport only), while CAA-DK has given information of total take off numbers for other Danish airports. Fuel statistics for jet fuel use and aviation gasoline are obtained from the DEA.

For off road working machinery and equipment the number of different types of machines, their load factors, engine sizes and annual working hours are taken from the Danish EPA (1992 and 1993). Fuel use statistics for diesel, gasoline and LPG are obtained from the DEA in relevant sectors.

The activity data for military, railways, sea transport and fishery consist of fuel use information provided by the DEA. For sea transport the basis is fuel sold in Danish ports and the traffic is defined as either national or international depending on the destination of the vessels in question as prescribed by the IPCC guidelines.

For all sectors fuel use figures are given in annex 6 for the years 1990 and 2001.

2.2. Emission factors

For military ground material and railways aggregated emission factors for gasoline and diesel are derived from the road traffic emission simulations made with the COPERT model. The emission factors for the remaining sectors come from the EMEP/CORINAIR guidebook, see CORINAIR (1999). For all sectors emission factors are given in annex 6 for the years 1990 and 2001.

2.3. Calculation method

For military, aircraft, railways, national sea traffic, fishing and aviation the emissions are estimated with the Tier 1 method using fuel related emission factors and fuel use from the DEA.

For aviation the estimates are made separately for Landing and Take Offs (LTOs < 3000 ft) and cruise (> 3000 ft). From 2001 the estimates are made on a city-pair level by combining activity data and emission factors and subsequently group the emission results into domestic and international totals. In a final step a fuel balance is made. The fuel ratio between model estimates and statistical sales is used to modify the model results of cruise fuel use and emissions according to the domestic and international cruise shares.

Prior to 2001 the calculation scheme is firstly to estimate each year's fuel use and emissions for LTO. Secondly the total cruise fuel use is found year by year as the statistical fuel use total minus the calculated fuel use for LTO. Lastly the cruise fuel use is split into domestic and international parts by using the results from a Danish city pair emission inventory in 1998 (Winther, 2001a). For more details of this latter fuel allocation procedure, see Winther (2001b).

Off road working machines and equipment are placed in the sectors: Inland waterways, agriculture, forestry, industry and household and gardening. In general the fuel use and

emissions are calculated by combining information of the number of different machine types and their respective load factors, engine sizes, annual working hours, and fuel use and emission factors. The simulations take into account the implementation of a two stage emission legislation directive depending on engine size for relevant types of diesel fuelled machinery. Stage I and II of the directive becomes effective for new machinery in use in 1999-2001 and 1999-2003 respectively.

A fuel balance is made for diesel between statistical sales and estimated fuel consumption and the ratio is used to scale the annual working hours used in the emission calculations for all machinery types. The final simulated fuel use for gasoline and LPG is maintained by adjusting the amount of fuel used in the simulations for road traffic and household.

The calculated emissions for other mobile sources are shown per sector in annex 7 for the years 1990 and 2001.

3. Recalculations

From 2001 air traffic estimates are made up using city-pair statistics from the CAA-DK. Moreover the flights for Greenland and the Faroe Islands are included under domestic aviation as prescribed by the UNFCCC reporting guidelines. Previous year's estimates (1990-2000) are updated in accordance with the new model.

For military and railways updated 1990-2001 emission factors are used for gasoline and diesel derived from the new road transport inventory results.

4. Uncertainties

Uncertainty estimates are made for road transport and other mobile sources using the guidelines and emission factor uncertainties formulated by Penman et al. (2000). The calculations are shown in annex 8.

Category	Fuel type	Activity data Uncertainty	Emission factor Uncertainty		
			CO_2	CH_4	N_2O
		%	%	%	%
Civil Aviation	Aviation Gasoline	0	5	100	1000
	Jet Kerosene	0	5	100	1000
Road Transportation	Gasoline	0	5	40	50
	Diesel Oil	2	5	40	50
Railways	Diesel Oil	2	5	100	1000
Navigation	Residual Oil	2	5	100	1000
	Gas/Diesel Oil	0	5	100	1000
Agriculture	Diesel Oil	20	5	100	1000
	Gasoline	20	5	100	1000
Forestry	Diesel Oil	20	5	100	1000
	Gasoline	20	5	100	1000
Industry	Diesel Oil	20	5	100	1000
	Gasoline	20	5	100	1000
	LPG	20	5	100	1000
Household and gardening	Gasoline	20	5	100	1000
Overall uncertainty in 2001			3,7	32,1	58,8
Trend uncertainty			3,8	4,1	154,4

5. Quality assurance/quality control (QA/QC)

For road transport the Tier 1 and Tier 2 methods are used independently to provide a quality control of the emission estimations. Firstly the bottom up approach (Tier 2) is used as described in the sections 1.1 to 1.5. Secondly the estimates are modified according to a fuel

balance using the statistical sale figures for road transportation fuel in Denmark (Tier 1), as described in section 1.6. The usage of the Tier 1 method ensures that all fuel for road transport is accounted for in the estimations and that no double counting of emissions for working equipment and machinery is made.

Also for air traffic and off road machinery and working equipment the Tier 1 and 2 methods are worked in parallel, see section 2.3. This enables the computation of more accurate sub-sectoral estimates and makes the level of total sector-wise emission contributions to be in compliance with anticipated results derived directly from national fuel statistics.

For the remaining transport sectors the Tier 1 method ensure that all fuel is accounted for in the emission estimations.

As a part of the general QA/QC work all time series of emissions in the CRF and SNAP source categories are examined and considerate changes are checked and explained. Moreover a comparison is made to the previous year's estimate, and any major changes are verified. As a last point a data transfer control is made from SNAP source categories to aggregated CRF source categories.

6. References

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Annex 1: Fleet data 1990-2001 for road transport (No. vehicles)

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Passenger Cars	Gasoline <1,4 l	PRE ECE	46209	44014	42804	36466	39959	37597	37130	3434	2761	2103	1744	1614
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	187912	161642	139010	119424	80742	67991	53302	44338	31104	22511	17980	15837
Passenger Cars	Gasoline <1,4 l	ECE 15/02	86959	80041	73306	66422	50119	43384	35052	26097	17585	10873	7348	5544
Passenger Cars	Gasoline <1,4 l	ECE 15/03	300791	294878	288227	280146	261998	250043	235177	215301	183113	147111	118929	97930
Passenger Cars	Gasoline <1,4 l	ECE 15/04	272012	270182	268686	268154	265860	262990	259954	265188	264791	254032	235890	219216
Passenger Cars	Gasoline <1,4 l	Euro I	10000	49608	87121	122067	177991	230063	282488	289374	275572	273582	270268	267260
Passenger Cars	Gasoline <1,4 l	Euro II								58502	119142	170981	209279	205833
Passenger Cars	Gasoline <1,4 l	Euro III												34695
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	35940	34233	33292	28362	31079	29242	28879	2671	2148	1635	1356	1255
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	127631	109641	94188	80844	54600	45991	36079	30465	21520	15647	12537	11077
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	55063	50674	46402	42040	31712	27445	22173	16509	11141	6870	4642	3500
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	174545	170750	166596	161592	150612	143386	133413	122642	103931	83270	67222	55300
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	180298	178950	177873	177525	176045	174195	172298	176155	179510	172582	160800	149915
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	10000	45647	82427	119744	184854	250826	322960	330407	315731	313279	309587	306414
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II								80440	163821	235099	287758	283021
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III												47705
Passenger Cars	Gasoline >2,0 l	PRE ECE	3423	3260	3171	2701	2960	2785	2750	254	205	156	129	120
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	10781	9234	7914	6781	4567	3849	3022	2619	1881	1366	1110	986
Passenger Cars	Gasoline >2,0 l	ECE 15/02	4392	4043	3702	3355	2531	2191	1770	1318	888	549	371	280
Passenger Cars	Gasoline >2,0 l	ECE 15/03	24667	24157	23595	22912	21429	20432	19053	17571	14934	12016	9722	8009
Passenger Cars	Gasoline >2,0 l	ECE 15/04	15679	15524	15390	15339	15120	14844	14546	14977	23975	22975	21251	19699
Passenger Cars	Gasoline >2,0 l	Euro I	10000	13961	17871	21674	28044	34257	40813	41567	31121	30887	30519	30193
Passenger Cars	Gasoline >2,0 l	Euro II								7313	14893	21373	26160	25729
Passenger Cars	Gasoline >2,0 l	Euro III												4337
Passenger Cars	Diesel <2,0 l	Euro I		4041	8031	11912	18412	24751	31440	31580	31998	35415	39518	43826
Passenger Cars	Diesel <2,0 l	Euro II								7316	15312	24505	33856	37328
Passenger Cars	Diesel <2,0 l	Euro III												6313
Passenger Cars	Diesel <2,0 l	Conventional	79709	75788	72288	68529	62139	58843	55000	48153	43893	43004	42861	42885
Passenger Cars	Diesel >2,0 l	Euro I		213	423	627	969	1303	1655	1662	1684	1864	2087	2313
Passenger Cars	Diesel >2,0 l	Euro II								385	806	1290	1789	1971
Passenger Cars	Diesel >2,0 l	Euro III												332
Passenger Cars	Diesel >2,0 l	Conventional	3702	3556	3425	3281	3040	2905	2746	2461	2266	2237	2228	2229
Passenger Cars	LPG	Conventional	286	286	288	289	289	301	311	172	97	44	32	63
Passenger Cars	2-Stroke	Conventional	5417	4804	4308	3747	3029	2443	1665	1248	761	400	300	200

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Light Duty Veh.	Gasoline <3,5t	Conventional	42333	43215	44179	45486	47261	44601	41519	37209	34454	31489	28488	25423
Light Duty Veh.	Gasoline <3,5t	Euro I						4259	8524	12645	17212	16632	15979	15527
Light Duty Veh.	Gasoline <3,5t	Euro II										4705	9299	14017
Light Duty Veh.	Diesel <3,5 t	Conventional	155543	158781	162324	167129	173650	163877	152553	142109	131572	122992	115695	105397
Light Duty Veh.	Diesel <3,5 t	Euro I						15648	31318	48292	65727	64964	64894	64370
Light Duty Veh.	Diesel <3,5 t	Euro II										18376	37766	58112
Heavy Duty Veh.	Gasoline >3,5 t	Conventional	250	255	260	268	279	288	295	261	274	253	257	249
Heavy Duty Veh.	Diesel 3,5 - 7,5 t	Conventional	5108	5214	5330	5488	5205	4891	4532	3999	3692	3079	2406	1979
Heavy Duty Veh.	Diesel 3,5 - 7,5 t	Euro I					497	1004	1506	1440	1435	1269	1057	951
Heavy Duty Veh.	Diesel 3,5 - 7,5 t	Euro II								529	1087	1487	1703	1990
Heavy Duty Veh.	Diesel 7,5 - 16 t	Conventional	10286	10500	10734	11052	10482	9850	9126	7800	6603	5613	5085	4210
Heavy Duty Veh.	Diesel 7,5 - 16 t	Euro I					1001	2022	3033	2808	2566	2314	2235	2024
Heavy Duty Veh.	Diesel 7,5 - 16 t	Euro II								1032	1945	2710	3600	4234
Heavy Duty Veh.	Diesel 16 - 32 t	Conventional	13034	13306	13602	14005	13283	12481	11564	10720	9832	8982	7933	6814
Heavy Duty Veh.	Diesel 16 - 32 t	Euro I					1268	2562	3844	3859	3821	3702	3486	3276
Heavy Duty Veh.	Diesel 16 - 32 t	Euro II								1419	2896	4336	5616	6853
Heavy Duty Veh.	Diesel >32t	Conventional	11446	11684	11944	12298	11664	10960	10154	9337	8720	8180	7361	6527
Heavy Duty Veh.	Diesel >32t	Euro I					1114	2250	3376	3362	3389	3371	3234	3138
Heavy Duty Veh.	Diesel >32t	Euro II								1236	2568	3949	5211	6564
Buses	Urban Buses	Conventional	4753	4561	4522	4490	4083	3635	3261	2946	2792	2542	2319	2319
Buses	Urban Buses	Euro I					390	746	1084	1060	972	913	852	852
Buses	Urban Buses	Euro II								390	729	1053	1345	1345
Buses	Coaches	Conventional	3327	2868	3007	3086	2927	4507	4156	3662	3369	3007	2724	2724
Buses	Coaches	Euro I					280	925	1381	1318	1173	1080	1001	1001
Buses	Coaches	Euro II								485	879	1246	1579	1579
Mopeds	<50 cm³	Conventional	120000	118000	113000	109000	105000	114167	123333	132500	141667	150833	150522	149460
Mopeds	<50 cm³	97/24/EC I											9478	15540
Motorcycles	2-stroke >50 cm³	Conventional	6617	6804	6904	7111	7406	7672	8214	8980	9598	10385	11054	11367
Motorcycles	4-stroke <250 cm³	Conventional	7499	7712	7824	8059	8394	8695	9310	10177	10878	11769	11916	11367
Motorcycles	4-stroke <250 cm³	97/24/EC											613	1074
Motorcycles	4-stroke 250-750 cm³	Conventional	20622	21207	21516	22162	23083	23911	25602	27986	29914	32365	32768	33910
Motorcycles	4-stroke 250-750 cm³	97/24/EC											1685	2953
Motorcycles	4-stroke >750 cm³	Conventional	9374	9639	9780	10074	10492	10869	11637	12721	13597	14712	14894	15414
Motorcycles	4-stroke >750 cm³	97/24/EC											766	1342

Annex 1: Mileage data 1990-2001 for road transport (km)

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Passenger Cars	Gasoline <1,4 l	PRE ECE	10352	11120	11847	12282	12679	12387	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	12073	12735	13119	13036	12679	12387	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline <1,4 l	ECE 15/02	13225	13605	14495	15028	15513	13532	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline <1,4 l	ECE 15/03	16370	16830	16920	16820	16701	15701	14867	14403	14225	13135	12591	11922
Passenger Cars	Gasoline <1,4 l	ECE 15/04	19941	20341	20763	20356	19947	18688	17564	16233	15648	14567	14356	12416
Passenger Cars	Gasoline <1,4 l	Euro I	22535	23984	25041	25397	25885	24768	23130	22344	21207	19362	18497	18409
Passenger Cars	Gasoline <1,4 l	Euro II								25981	25671	23766	24054	22954
Passenger Cars	Gasoline <1,4 l	Euro III												25954
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	10352	11120	11847	12282	12679	12387	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	12073	12735	13119	13036	12679	12387	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	13225	13605	14495	15028	15513	13532	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	16370	16830	16920	16820	16701	15701	14867	14403	14225	13135	12591	11922
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	19941	20341	20763	20356	19947	18688	17564	16233	15648	14567	14356	12416
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	22535	23984	25041	25397	25885	24768	23130	22344	21207	19362	18497	18409
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II								25981	25671	23766	24054	22954
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III												25954
Passenger Cars	Gasoline >2,0 l	PRE ECE	10352	11120	11847	12282	12679	12387	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	12073	12735	13119	13036	12679	12387	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline >2,0 l	ECE 15/02	13225	13605	14495	15028	15513	13532	12152	11935	11988	11407	11507	11922
Passenger Cars	Gasoline >2,0 l	ECE 15/03	16370	16830	16920	16820	16701	15701	14867	14403	14225	13135	12591	11922
Passenger Cars	Gasoline >2,0 l	ECE 15/04	19941	20341	20763	20356	19947	18688	17564	16233	15648	14567	14356	12416
Passenger Cars	Gasoline >2,0 l	Euro I	22535	23984	25041	25397	25885	24768	23130	22344	21207	19362	18497	18409
Passenger Cars	Gasoline >2,0 l	Euro II								25981	25671	23766	24054	22954
Passenger Cars	Gasoline >2,0 l	Euro III												25954
Passenger Cars	Diesel <2,0 l	Euro I		44822	44911	43972	44800	44746	43410	41641	39363	38090	35677	34320
Passenger Cars	Diesel <2,0 l	Euro II								47992	47256	46753	45221	42794
Passenger Cars	Diesel <2,0 l	Euro III												48385
Passenger Cars	Diesel <2,0 l	Conventional	30874	30888	30400	29591	29501	29228	28169	27809	27304	27242	26288	22832
Passenger Cars	Diesel >2,0 l	Euro I		44822	44911	43972	44800	44746	43410	41641	39363	38090	35677	34320
Passenger Cars	Diesel >2,0 l	Euro II								47992	47256	46753	45221	42794
Passenger Cars	Diesel >2,0 l	Euro III												48385
Passenger Cars	Diesel >2,0 l	Conventional	30874	30888	30400	29591	29501	29228	28169	27809	27304	27242	26288	22832
Passenger Cars	LPG	Conventional	16370	16830	16920	16820	16701	15701	14867	12868	14225	13135	12591	11922
Passenger Cars	2-Stroke	Conventional	16370	16830	16920	16820	16701	15701	14867	12868	14225	13135	12591	11922

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Light Duty Veh.	Gasoline <3,5t	Conventional	20255	20573	21208	21167	21003	20157	20005	19559	18762	17644	18101	16619
Light Duty Veh.	Gasoline <3,5t	Euro I						20157	20005	19559	18762	17644	18101	16619
Light Duty Veh.	Gasoline <3,5t	Euro II										17644	18101	16619
Light Duty Veh.	Diesel <3,5 t	Conventional	40234	40672	38721	37230	38732	36909	37282	37023	35010	33919	32789	32130
Light Duty Veh.	Diesel <3,5 t	Euro I						36909	37282	37023	35010	33919	32789	32130
Light Duty Veh.	Diesel <3,5 t	Euro II										33919	32789	32130
Heavy Duty Veh.	Gasoline >3,5 t	Conventional	24464	24848	25614	25565	25367	24346	24162	21140	21559	20756	22009	23191
Heavy Duty Veh.	Diesel 3,5 - 7,5 t	Conventional	41061	41509	39516	37996	39528	37666	38048	30803	31809	33314	34246	44099
Heavy Duty Veh.	Diesel 3,5 - 7,5 t	Euro I					39528	37666	38048	30803	31809	33314	34246	44099
Heavy Duty Veh.	Diesel 3,5 - 7,5 t	Euro II								30803	31809	33314	34246	44099
Heavy Duty Veh.	Diesel 7,5 - 16 t	Conventional	49634	50175	47767	45929	47781	45532	45991	43199	42348	38844	37550	20945
Heavy Duty Veh.	Diesel 7,5 - 16 t	Euro I					47781	45532	45991	43199	42348	38844	37550	20945
Heavy Duty Veh.	Diesel 7,5 - 16 t	Euro II								43199	42348	38844	37550	20945
Heavy Duty Veh.	Diesel 16 - 32 t	Conventional	68996	69748	66402	63845	66422	63294	63934	64717	65653	66302	64092	68254
Heavy Duty Veh.	Diesel 16 - 32 t	Euro I					66422	63294	63934	64717	65653	66302	64092	68254
Heavy Duty Veh.	Diesel 16 - 32 t	Euro II								64717	65653	66302	64092	68254
Heavy Duty Veh.	Diesel >32t	Conventional	68996	69748	66402	63845	66422	63294	63934	64717	65653	66302	64092	68254
Heavy Duty Veh.	Diesel >32t	Euro I					66422	63294	63934	64717	65653	66302	64092	68254
Heavy Duty Veh.	Diesel >32t	Euro II								64717	65653	66302	64092	68254
Buses	Urban Buses	Conventional	104096	107730	104029	103324	108850	103224	103953	103313	102311	99070	95765	93590
Buses	Urban Buses	Euro I					108850	103224	103953	103313	102311	99070	95765	93590
Buses	Urban Buses	Euro II								103313	102311	99070	95765	93590
Buses	Coaches	Conventional	93315	98696	98846	98624	108850	90022	85021	83545	82509	80371	77850	76121
Buses	Coaches	Euro I					108850	90022	85021	83545	82509	80371	77850	76121
Buses	Coaches	Euro II								83545	82509	80371	77850	76121
Mopeds	<50 cm³	Conventional	2056	2137	2235	2304	2315	2211	2188	2141	2151	1751	1614	1175
Mopeds	<50 cm³	97/24/EC I											1614	1175
Motorcycles	2-stroke >50 cm³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5827	6029	5563
Motorcycles	4-stroke <250 cm³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5827	6029	5563
Motorcycles	4-stroke <250 cm³	97/24/EC											6029	5563
Motorcycles	4-stroke 250-750 cm³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5827	6029	5563
Motorcycles	4-stroke 250-750 cm³	97/24/EC											6029	5563
Motorcycles	4-stroke >750 cm³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5827	6029	5563
Motorcycles	4-stroke >750 cm³	97/24/EC											6029	5563

Annex 2: Basis emission factors (g/km)

Sector	Subsector	Tech	FCu	FCr	FCh	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh
Passenger Cars	Gasoline <1,4 l	PRE ECE	67,499	55,000	62,743	216	176	201	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	58,240	44,460	48,600	186	142	155	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/02	53,248	45,170	51,200	170	144	164	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/03	53,248	45,170	51,200	170	144	164	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/04	51,420	43,440	47,700	164	139	153	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	Euro I	51,136	37,996	43,936	164	121	140	0,038	0,018	0,021	0,053	0,016	0,035
Passenger Cars	Gasoline <1,4 l	Euro II	51,136	37,996	43,936	164	121	140	0,038	0,018	0,021	0,053	0,016	0,035
Passenger Cars	Gasoline <1,4 l	Euro III	51,136	37,996	43,936	164	121	140	0,038	0,018	0,021	0,053	0,016	0,035
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	79,277	67,000	76,386	253	214	244	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	67,779	51,090	60,300	217	163	193	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	61,731	50,686	59,680	197	162	191	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	61,731	50,686	59,680	197	162	191	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	61,652	49,112	52,052	197	157	166	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	65,920	44,020	48,040	211	141	154	0,039	0,017	0,016	0,053	0,016	0,035
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II	65,920	44,020	48,040	211	141	154	0,039	0,017	0,016	0,053	0,016	0,035
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III	65,920	44,020	48,040	211	141	154	0,039	0,017	0,016	0,053	0,016	0,035
Passenger Cars	Gasoline >2,0 l	PRE ECE	96,536	80,000	88,267	309	256	282	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	73,798	57,090	66,300	236	183	212	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/02	75,270	63,260	70,700	241	202	226	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/03	75,270	63,260	70,700	241	202	226	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/04	71,055	58,080	69,900	227	186	223	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	Euro I	79,370	46,400	51,050	254	148	163	0,040	0,017	0,010	0,053	0,016	0,035
Passenger Cars	Gasoline >2,0 l	Euro II	79,370	46,400	51,050	254	148	163	0,040	0,017	0,010	0,053	0,016	0,035
Passenger Cars	Gasoline >2,0 l	Euro III	79,370	46,400	51,050	254	148	163	0,040	0,017	0,010	0,053	0,016	0,035
Passenger Cars	Diesel <2,0 l	Euro I	52,722	42,225	47,406	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel <2,0 l	Euro II	52,722	42,225	47,406	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel <2,0 l	Euro III	52,722	42,225	47,406	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel <2,0 l	Conventional	57,529	41,209	50,089	182	130	158	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Euro I	52,722	42,225	47,406	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Euro II	52,722	42,225	47,406	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Euro III	52,722	42,225	47,406	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Conventional	57,529	41,209	50,089	182	130	158	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	LPG	Conventional	59,000	45,000	54,000	176	135	161	0,080	0,035	0,025	0,015	0,015	0,015
Passenger Cars	2-Stroke	Conventional	111,500	66,000	56,900	357	211	182	0,150	0,040	0,025	0,005	0,005	0,005

Sector	Subsector	Tech	FCu	FCr	FCh	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh
Light Duty Vehicles	Gasoline <3,5t	Conventional	82,270	59,883	56,470	263	191	181	0,150	0,040	0,025	0,006	0,006	0,006
Light Duty Vehicles	Gasoline <3,5t	Euro I	96,450	70,388	66,450	308	225	212	0,038	0,020	0,016	0,053	0,016	0,035
Light Duty Vehicles	Gasoline <3,5t	Euro II	96,450	70,388	66,450	308	225	212	0,038	0,020	0,016	0,053	0,016	0,035
Light Duty Vehicles	Diesel <3,5 t	Conventional	76,718	65,934	72,142	242	208	228	0,005	0,005	0,005	0,017	0,017	0,017
Light Duty Vehicles	Diesel <3,5 t	Euro I	68,860	58,185	63,660	218	184	201	0,005	0,005	0,005	0,017	0,017	0,017
Light Duty Vehicles	Diesel <3,5 t	Euro II	68,860	58,185	63,660	218	184	201	0,005	0,005	0,005	0,017	0,017	0,017
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	225,000	150,000	165,000	719	480	528	0,140	0,110	0,070	0,006	0,006	0,006
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	95,822	87,060	109,160	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I	95,822	87,060	109,160	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II	95,822	87,060	109,160	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	186,796	147,006	169,108	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I	186,796	147,006	169,108	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II	186,796	147,006	169,108	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	295,313	227,040	230,740	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	295,313	227,040	230,740	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	295,313	227,040	230,740	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Conventional	392,838	311,460	297,380	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Euro I	392,838	311,460	297,380	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Euro II	392,838	311,460	297,380	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Conventional	315,796	253,287	219,035	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Euro I	315,796	253,287	219,035	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Euro II	315,796	253,287	219,035	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Conventional	281,771	214,600	198,320	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Euro I	281,771	214,600	198,320	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Euro II	281,771	214,600	198,320	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Mopeds	<50 cm³	Conventional	25,000	25,000	0,000	80	80	0	0,219	0,000	0,000	0,001	0,000	0,000
Mopeds	<50 cm³	97/24/EC I	25,000	25,000	0,000	80	80	0	0,219	0,000	0,000	0,001	0,000	0,000
Motorcycles	2-stroke >50 cm³	Conventional	30,368	32,375	36,950	97	104	118	0,150	0,150	0,150	0,002	0,002	0,002
Motorcycles	4-stroke <250 cm³	Conventional	23,180	26,718	35,640	74	85	114	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke <250 cm³	97/24/EC	23,180	26,718	35,640	74	85	114	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke 250 - 750 cm³	Conventional	28,620	28,640	34,700	92	92	111	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC	28,620	28,640	34,700	92	92	111	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke >750 cm³	Conventional	37,500	34,354	38,620	120	110	123	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke >750 cm³	97/24/EC	37,500	34,354	38,620	120	110	123	0,200	0,200	0,200	0,002	0,002	0,002

Sector	Subsector	Tech	COu	COr	COh	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh
Passenger Cars	Gasoline <1,4 l	PRE ECE	27,505	19,333	15,520	1,849	2,062	2,023	2,262	1,568	1,221
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	18,966	14,480	18,620	1,849	2,062	2,023	1,770	1,227	1,095
Passenger Cars	Gasoline <1,4 l	ECE 15/02	15,859	8,200	8,260	1,619	2,102	2,909	1,757	1,032	0,924
Passenger Cars	Gasoline <1,4 l	ECE 15/03	16,752	8,793	7,620	1,680	2,253	3,276	1,757	1,032	0,924
Passenger Cars	Gasoline <1,4 l	ECE 15/04	9,087	4,956	4,292	1,691	2,089	2,662	1,388	0,866	0,672
Passenger Cars	Gasoline <1,4 l	Euro I	1,898	0,557	3,176	0,314	0,356	0,593	0,175	0,064	0,082
Passenger Cars	Gasoline <1,4 l	Euro II	1,898	0,557	3,176	0,314	0,356	0,593	0,175	0,064	0,082
Passenger Cars	Gasoline <1,4 l	Euro III	1,898	0,557	3,176	0,314	0,356	0,593	0,175	0,064	0,082
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	27,505	19,333	15,520	2,164	2,683	3,130	2,262	1,568	1,221
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	18,966	14,480	18,620	2,164	2,683	3,130	1,770	1,227	1,095
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	15,859	8,200	8,260	1,831	2,377	3,283	1,757	1,032	0,924
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	16,752	8,793	7,620	1,917	2,580	3,472	1,757	1,032	0,924
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	9,087	4,956	4,292	2,122	2,757	3,524	1,388	0,866	0,672
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	2,583	0,937	2,402	0,323	0,349	0,530	0,138	0,066	0,067
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II	2,583	0,937	2,402	0,323	0,349	0,530	0,138	0,066	0,067
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III	2,583	0,937	2,402	0,323	0,349	0,530	0,138	0,066	0,067
Passenger Cars	Gasoline >2,0 l	PRE ECE	27,505	19,333	15,520	2,860	4,090	5,500	2,262	1,568	1,221
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	18,966	14,480	18,620	2,860	4,090	5,500	1,770	1,227	1,095
Passenger Cars	Gasoline >2,0 l	ECE 15/02	15,859	8,200	8,260	2,066	2,675	3,680	1,757	1,032	0,924
Passenger Cars	Gasoline >2,0 l	ECE 15/03	16,752	8,793	7,620	2,806	3,441	4,604	1,757	1,032	0,924
Passenger Cars	Gasoline >2,0 l	ECE 15/04	9,087	4,956	4,292	2,293	2,750	3,687	1,388	0,866	0,672
Passenger Cars	Gasoline >2,0 l	Euro I	3,838	0,814	0,976	0,427	0,406	0,521	0,232	0,147	0,105
Passenger Cars	Gasoline >2,0 l	Euro II	3,838	0,814	0,976	0,427	0,406	0,521	0,232	0,147	0,105
Passenger Cars	Gasoline >2,0 l	Euro III	3,838	0,814	0,976	0,427	0,406	0,521	0,232	0,147	0,105
Passenger Cars	Diesel <2,0 l	Euro I	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel <2,0 l	Euro II	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel <2,0 l	Euro III	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel <2,0 l	Conventional	0,651	0,472	0,384	0,520	0,433	0,528	0,141	0,081	0,052
Passenger Cars	Diesel >2,0 l	Euro I	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel >2,0 l	Euro II	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel >2,0 l	Euro III	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel >2,0 l	Conventional	0,651	0,472	0,384	0,824	0,723	0,861	0,141	0,081	0,052
Passenger Cars	LPG	Conventional	2,043	2,373	9,723	2,203	2,584	2,861	1,002	0,632	0,465

Sector	Subsector	Tech	COu	COr	COh	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh
Passenger Cars	2-Stroke	Conventional	20,700	7,500	8,700	0,300	1,020	0,720	15,250	7,160	5,875
Light Duty Vehicles	Gasoline <3,5t	Conventional	14,925	6,075	7,389	2,671	3,118	3,387	1,727	0,689	0,421
Light Duty Vehicles	Gasoline <3,5t	Euro I	4,187	0,862	1,087	0,427	0,400	0,429	0,181	0,090	0,062
Light Duty Vehicles	Gasoline <3,5t	Euro II	4,187	0,862	1,087	0,427	0,400	0,429	0,181	0,090	0,062
Light Duty Vehicles	Diesel <3,5 t	Conventional	1,124	1,009	1,060	1,673	0,843	0,834	0,126	0,101	0,096
Light Duty Vehicles	Diesel <3,5 t	Euro I	0,393	0,328	0,423	1,138	0,975	1,022	0,126	0,101	0,096
Light Duty Vehicles	Diesel <3,5 t	Euro II	0,393	0,328	0,423	1,138	0,975	1,022	0,126	0,101	0,096
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	70,000	55,000	55,000	4,500	7,500	7,500	6,860	5,390	3,430
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Conventional	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Euro I	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Euro II	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Buses	Urban Buses	Conventional	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Urban Buses	Euro I	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Urban Buses	Euro II	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Coaches	Conventional	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Buses	Coaches	Euro I	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Buses	Coaches	Euro II	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Mopeds	<50 cm^3	Conventional	15,000	15,000	0,000	0,030	0,030	0,000	8,781	9,000	0,000
Mopeds	<50 cm^3	97/24/EC I	15,000	15,000	0,000	0,030	0,030	0,000	8,781	9,000	0,000
Motorcycles	2-stroke >50 cm^3	Conventional	23,380	25,490	27,500	0,032	0,088	0,133	9,190	8,252	8,210
Motorcycles	4-stroke <250 cm^3	Conventional	22,380	26,300	38,600	0,130	0,242	0,362	1,350	0,760	1,120
Motorcycles	4-stroke <250 cm^3	97/24/EC	22,380	26,300	38,600	0,130	0,242	0,362	1,350	0,760	1,120
Motorcycles	4-stroke 250 - 750 cm^3	Conventional	20,440	21,517	25,810	0,136	0,251	0,374	1,150	0,744	0,810
Motorcycles	4-stroke 250 - 750 cm^3	97/24/EC	20,440	21,517	25,810	0,136	0,251	0,374	1,150	0,744	0,810
Motorcycles	4-stroke >750 cm^3	Conventional	14,880	18,030	24,300	0,148	0,266	0,392	2,320	1,410	0,990
Motorcycles	4-stroke >750 cm^3	97/24/EC	14,880	18,030	24,300	0,148	0,266	0,392	2,320	1,410	0,990

Annex 3: Fuel use factors (MJ/km) and emission factors (g/km)

Year	Sector	FCu (MJ)	FCr (MJ)	FCh (MJ)	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh
1990	Passenger Cars	3,082	2,054	2,318	223	149	168	0,143	0,027	0,024	0,008	0,007	0,00
1991	Passenger Cars	3,121	2,036	2,297	226	148	166	0,157	0,026	0,024	0,011	0,008	0,01
1992	Passenger Cars	3,133	2,020	2,276	227	146	165	0,165	0,025	0,023	0,014	0,009	0,01
1993	Passenger Cars	3,161	2,003	2,255	229	145	163	0,181	0,025	0,023	0,017	0,009	0,01
1994	Passenger Cars	3,162	1,981	2,226	229	143	161	0,189	0,024	0,022	0,021	0,010	0,01
1995	Passenger Cars	3,213	1,960	2,202	233	142	160	0,208	0,023	0,021	0,025	0,011	0,01
1996	Passenger Cars	3,275	1,945	2,182	237	141	158	0,234	0,022	0,021	0,028	0,012	0,02
1997	Passenger Cars	3,225	1,912	2,142	234	139	155	0,215	0,020	0,019	0,032	0,013	0,02
1998	Passenger Cars	3,201	1,901	2,128	232	138	154	0,198	0,018	0,017	0,034	0,013	0,02
1999	Passenger Cars	3,383	1,886	2,110	245	137	153	0,234	0,016	0,015	0,036	0,014	0,02
2000	Passenger Cars	3,207	1,875	2,097	232	136	152	0,187	0,014	0,014	0,038	0,015	0,02
2001	Passenger Cars	3,241	1,865	2,085	235	135	151	0,188	0,013	0,013	0,040	0,015	0,02
1990	Light Duty Vehicles	3,842	2,792	3,007	282	205	221	0,038	0,009	0,007	0,016	0,016	0,01
1991	Light Duty Vehicles	3,872	2,792	3,007	284	205	221	0,040	0,009	0,007	0,016	0,016	0,01
1992	Light Duty Vehicles	3,873	2,790	3,002	284	205	220	0,042	0,010	0,008	0,016	0,016	0,01
1993	Light Duty Vehicles	3,907	2,790	2,999	286	205	220	0,044	0,010	0,008	0,016	0,016	0,01
1994	Light Duty Vehicles	3,945	2,791	3,002	289	205	220	0,044	0,010	0,008	0,016	0,016	0,01
1995	Light Duty Vehicles	3,937	2,771	2,979	289	203	219	0,044	0,009	0,007	0,016	0,016	0,01
1996	Light Duty Vehicles	3,973	2,752	2,959	291	202	217	0,046	0,009	0,007	0,017	0,016	0,01
1997	Light Duty Vehicles	3,900	2,732	2,939	286	200	216	0,041	0,009	0,007	0,017	0,016	0,01
1998	Light Duty Vehicles	3,851	2,714	2,918	282	199	214	0,040	0,008	0,007	0,018	0,016	0,01
1999	Light Duty Vehicles	4,000	2,697	2,901	293	198	213	0,042	0,008	0,007	0,018	0,016	0,01
2000	Light Duty Vehicles	3,816	2,681	2,883	280	197	211	0,036	0,008	0,007	0,018	0,016	0,01
2001	Light Duty Vehicles	3,821	2,663	2,866	280	195	210	0,034	0,007	0,006	0,019	0,016	0,01

Year	Sector	FCu (MJ)	FCr (MJ)	FCh (MJ)	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh
1990	Heavy Duty Vehicles	11,965	9,685	10,256	879	712	754	0,151	0,067	0,063	0,030	0,030	0,03
1991	Heavy Duty Vehicles	12,016	9,691	10,226	883	712	751	0,151	0,066	0,062	0,030	0,030	0,03
1992	Heavy Duty Vehicles	12,023	9,677	10,218	883	711	751	0,152	0,066	0,062	0,030	0,030	0,03
1993	Heavy Duty Vehicles	11,898	9,723	10,189	874	714	749	0,150	0,067	0,062	0,030	0,030	0,03
1994	Heavy Duty Vehicles	11,929	9,663	10,141	877	710	745	0,146	0,065	0,061	0,030	0,030	0,03
1995	Heavy Duty Vehicles	11,911	9,673	10,013	875	711	736	0,142	0,064	0,059	0,030	0,030	0,03
1996	Heavy Duty Vehicles	11,938	9,657	10,026	877	710	737	0,137	0,061	0,058	0,030	0,030	0,03
1997	Heavy Duty Vehicles	12,176	9,836	10,152	895	723	746	0,133	0,061	0,057	0,030	0,030	0,03
1998	Heavy Duty Vehicles	12,246	9,904	10,209	900	728	750	0,129	0,059	0,056	0,030	0,030	0,03
1999	Heavy Duty Vehicles	12,389	10,028	10,306	910	737	757	0,126	0,059	0,055	0,030	0,030	0,03
2000	Heavy Duty Vehicles	12,422	10,055	10,329	913	739	759	0,121	0,057	0,053	0,030	0,030	0,03
2001	Heavy Duty Vehicles	12,685	10,273	10,476	932	755	770	0,121	0,057	0,053	0,030	0,030	0,03
1990	2-wheelers	1,173	1,245	1,578	85	90	114	0,209	0,130	0,192	0,001	0,001	0,00
1991	2-wheelers	1,182	1,242	1,578	86	90	114	0,208	0,127	0,193	0,001	0,001	0,00
1992	2-wheelers	1,178	1,253	1,578	85	91	114	0,209	0,137	0,192	0,001	0,001	0,00
1993	2-wheelers	1,190	1,249	1,578	86	90	114	0,207	0,133	0,192	0,001	0,001	0,00
1994	2-wheelers	1,188	1,258	1,578	86	91	114	0,207	0,141	0,193	0,001	0,001	0,00
1995	2-wheelers	1,182	1,254	1,578	86	91	114	0,208	0,137	0,193	0,001	0,001	0,00
1996	2-wheelers	1,185	1,256	1,578	86	91	114	0,208	0,139	0,193	0,001	0,001	0,00
1997	2-wheelers	1,186	1,257	1,578	86	91	114	0,208	0,140	0,192	0,001	0,001	0,00
1998	2-wheelers	1,186	1,257	1,578	86	91	114	0,208	0,140	0,193	0,001	0,001	0,00
1999	2-wheelers	1,195	1,264	1,578	86	91	114	0,207	0,146	0,192	0,001	0,002	0,00
2000	2-wheelers	1,198	1,265	1,572	87	92	114	0,202	0,150	0,193	0,001	0,002	0,00
2001	2-wheelers	1,210	1,272	1,568	88	92	113	0,199	0,158	0,193	0,002	0,002	0,00

Year	Sector	SO2u	SO2r	SO2h	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh	COu	COr	COh
1990	Passenger Cars	0,031	0,020	0,023	1,791	2,142	2,763	2,527	0,929	0,787	26,382	7,625	7,55
1991	Passenger Cars	0,030	0,019	0,023	1,718	2,014	2,609	2,520	0,864	0,732	26,666	7,061	7,06
1992	Passenger Cars	0,021	0,014	0,016	1,649	1,901	2,475	2,416	0,804	0,681	25,631	6,538	6,66
1993	Passenger Cars	0,012	0,008	0,009	1,595	1,798	2,356	2,402	0,746	0,633	25,790	6,025	6,32
1994	Passenger Cars	0,012	0,008	0,009	1,488	1,624	2,149	2,200	0,654	0,555	23,663	5,243	5,74
1995	Passenger Cars	0,013	0,008	0,009	1,430	1,495	1,993	2,157	0,584	0,497	23,607	4,701	5,50
1996	Passenger Cars	0,013	0,008	0,009	1,393	1,395	1,875	2,176	0,526	0,449	24,352	4,267	5,36
1997	Passenger Cars	0,013	0,008	0,009	1,283	1,240	1,694	1,835	0,435	0,376	20,485	3,464	4,97
1998	Passenger Cars	0,013	0,008	0,009	1,197	1,129	1,549	1,619	0,382	0,329	18,258	3,057	4,67
1999	Passenger Cars	0,011	0,006	0,007	1,053	0,888	1,200	1,647	0,301	0,255	19,037	2,333	3,14
2000	Passenger Cars	0,007	0,004	0,005	1,027	0,893	1,232	1,335	0,277	0,238	15,805	2,309	4,10
2001	Passenger Cars	0,007	0,004	0,005	0,958	0,796	1,107	1,261	0,234	0,203	15,723	2,064	4,04
1990	Light Duty Vehicles	0,312	0,233	0,255	1,960	1,117	1,141	0,546	0,171	0,135	5,044	1,620	1,82
1991	Light Duty Vehicles	0,314	0,233	0,254	1,979	1,118	1,143	0,568	0,172	0,135	5,242	1,622	1,82
1992	Light Duty Vehicles	0,202	0,150	0,164	1,981	1,138	1,165	0,586	0,177	0,138	5,453	1,666	1,88
1993	Light Duty Vehicles	0,079	0,058	0,063	2,004	1,147	1,176	0,620	0,179	0,140	5,785	1,688	1,90
1994	Light Duty Vehicles	0,080	0,058	0,064	2,006	1,135	1,162	0,618	0,176	0,138	5,767	1,661	1,87
1995	Light Duty Vehicles	0,080	0,058	0,063	1,945	1,115	1,144	0,605	0,170	0,134	5,616	1,553	1,75
1996	Light Duty Vehicles	0,080	0,057	0,062	1,907	1,091	1,121	0,612	0,163	0,130	5,646	1,441	1,63
1997	Light Duty Vehicles	0,079	0,057	0,062	1,811	1,064	1,094	0,543	0,154	0,125	4,957	1,317	1,50
1998	Light Duty Vehicles	0,078	0,056	0,062	1,735	1,050	1,082	0,507	0,149	0,122	4,638	1,232	1,41
1999	Light Duty Vehicles	0,045	0,031	0,034	1,725	1,025	1,058	0,536	0,141	0,117	4,820	1,111	1,27
2000	Light Duty Vehicles	0,009	0,006	0,007	1,629	1,018	1,052	0,459	0,137	0,115	4,159	1,064	1,22
2001	Light Duty Vehicles	0,009	0,006	0,007	1,593	0,998	1,032	0,442	0,130	0,111	3,903	0,964	1,11

Year	Sector	SO2u	SO2r	SO2h	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh	COu	COr	COh
1990	Heavy Duty Vehicles	1,119	0,906	0,960	12,379	9,166	8,502	1,527	1,007	0,792	3,707	2,411	1,85
1991	Heavy Duty Vehicles	1,124	0,907	0,957	12,423	9,174	8,460	1,532	1,007	0,792	3,687	2,414	1,86
1992	Heavy Duty Vehicles	0,731	0,588	0,622	12,435	9,145	8,456	1,532	1,011	0,792	3,700	2,413	1,86
1993	Heavy Duty Vehicles	0,278	0,227	0,238	12,272	9,212	8,433	1,538	1,008	0,792	3,707	2,420	1,87
1994	Heavy Duty Vehicles	0,279	0,226	0,237	11,939	8,820	8,092	1,475	0,986	0,775	3,588	2,323	1,81
1995	Heavy Duty Vehicles	0,278	0,226	0,234	11,490	8,527	7,722	1,439	0,964	0,761	3,411	2,225	1,75
1996	Heavy Duty Vehicles	0,279	0,226	0,235	11,123	8,241	7,455	1,396	0,938	0,745	3,260	2,156	1,70
1997	Heavy Duty Vehicles	0,285	0,230	0,238	10,798	8,035	7,206	1,331	0,903	0,721	3,070	2,044	1,63
1998	Heavy Duty Vehicles	0,286	0,232	0,239	10,374	7,747	6,917	1,283	0,876	0,700	2,941	1,970	1,58
1999	Heavy Duty Vehicles	0,159	0,129	0,133	10,019	7,524	6,684	1,233	0,849	0,680	2,793	1,883	1,53
2000	Heavy Duty Vehicles	0,029	0,024	0,024	9,598	7,227	6,410	1,193	0,826	0,663	2,686	1,824	1,50
2001	Heavy Duty Vehicles	0,030	0,024	0,025	9,526	7,161	6,252	1,148	0,803	0,645	2,625	1,770	1,46
1990	2-wheelers	0,003	0,004	0,005	0,064	0,164	0,340	6,532	4,283	2,011	16,842	19,852	27,91
1991	2-wheelers	0,003	0,003	0,004	0,068	0,161	0,340	6,249	4,379	2,011	17,073	19,753	27,91
1992	2-wheelers	0,003	0,003	0,004	0,066	0,171	0,340	6,372	4,042	2,011	16,972	20,099	27,91
1993	2-wheelers	0,003	0,003	0,004	0,071	0,167	0,340	6,033	4,187	2,011	17,250	19,950	27,91
1994	2-wheelers	0,003	0,003	0,004	0,070	0,175	0,340	6,097	3,880	2,011	17,197	20,267	27,91
1995	2-wheelers	0,003	0,003	0,004	0,068	0,171	0,340	6,271	4,023	2,011	17,055	20,119	27,91
1996	2-wheelers	0,003	0,003	0,004	0,069	0,173	0,340	6,184	3,960	2,011	17,126	20,184	27,91
1997	2-wheelers	0,003	0,003	0,004	0,069	0,174	0,340	6,153	3,931	2,011	17,152	20,214	27,91
1998	2-wheelers	0,003	0,003	0,004	0,069	0,174	0,340	6,145	3,924	2,011	17,158	20,221	27,91
1999	2-wheelers	0,003	0,003	0,004	0,073	0,180	0,340	5,895	3,704	2,011	17,363	20,448	27,91
2000	2-wheelers	0,003	0,003	0,004	0,077	0,186	0,342	5,549	3,417	1,980	17,021	20,004	27,41
2001	2-wheelers	0,003	0,003	0,004	0,084	0,196	0,345	5,073	3,064	1,933	16,990	19,880	26,94

Annex 4:Fuel use (GJ) and emissions (tons) per vehicle category

Year	Sector	FC (GJ)	CO2	CH4	N2O	SO2	NOx	NMVOC	CO
1990	Passenger Cars	69608254	5043700	2079	214	687	57332	71086	427990
1991	Passenger Cars	73816548	5348323	2334	280	709	57836	71423	443231
1992	Passenger Cars	77348442	5603904	2467	347	526	58614	70458	434504
1993	Passenger Cars	79376296	5750620	2719	407	307	57397	68127	438753
1994	Passenger Cars	82258416	5959390	2876	511	318	55069	63930	410796
1995	Passenger Cars	83450719	6046096	3038	587	329	52947	59334	396227
1996	Passenger Cars	84286667	6106833	3288	651	335	50991	55425	394948
1997	Passenger Cars	86483699	6265962	3139	761	344	48026	49139	347652
1998	Passenger Cars	88522087	6413827	2975	833	356	45484	44559	320454
1999	Passenger Cars	89328184	6473548	3347	877	294	36597	42347	303479
2000	Passenger Cars	88595697	6421379	2769	938	203	37329	32628	274087
2001	Passenger Cars	88434195	6410500	2751	981	202	33750	28933	267408
1990	Light Duty Vehicles	23115080	1695295	149	112	1906	10428	3091	21687
1991	Light Duty Vehicles	23957024	1757050	159	115	1974	10830	3248	23002
1992	Light Duty Vehicles	23479719	1721818	160	112	1248	10678	3305	23176
1993	Light Duty Vehicles	23450531	1719549	167	112	481	10731	3389	24109
1994	Light Duty Vehicles	24974574	1831494	167	120	516	11211	3480	24458
1995	Light Duty Vehicles	24505598	1796982	164	121	504	10790	3295	23171
1996	Light Duty Vehicles	25221292	1849446	170	127	519	10851	3235	23111
1997	Light Duty Vehicles	25453281	1866574	159	132	526	10671	2991	21012
1998	Light Duty Vehicles	24752576	1815060	151	132	509	10197	2750	19304
1999	Light Duty Vehicles	25246216	1851344	157	134	290	10113	2817	19299
2000	Light Duty Vehicles	25282013	1853875	141	139	59	10060	2415	17666
2001	Light Duty Vehicles	25520318	1871549	135	143	60	9976	2282	16600

Annex 5: Total emissions (tons) for road transport 1990-2001

Year	SO2	NOx	NMVOC	CH4	CO	CO2	N2O
1990	5769	100118	80774	2620	467745	9277069	423
1991	5905	101506	81436	2891	484830	9681694	494
1992	3822	101402	80499	3024	476563	9847443	556
1993	1571	99862	78250	3283	481940	9971964	615
1994	1671	98904	74203	3444	454750	10467465	735
1995	1684	95730	69476	3602	438837	10563069	813
1996	1723	93410	65693	3862	437939	10734864	886
1997	1746	89086	59195	3700	388778	10938138	1000
1998	1769	85642	54617	3536	360719	11125879	1074
1999	1089	75772	52070	3904	342989	11259857	1121
2000	353	74501	41624	3299	311969	11140469	1185
2001	355	70348	37026	3259	302537	11183436	1230

Annex 6: Fuel use and emission factors for other mobile sources 1990 and 2001

Year	SNAP ID	Category	Fuel type	Mode	Fuel [GJ]	SO_2 [g/GJ]	NO_x [g/GJ]	NMVOC [g/GJ]	CH_4 [g/GJ]	CO [g/GJ]	CO_2 [kg/GJ]	N_2O [g/GJ]
1990	0801	Military	Diesel		146162	93,68	778,10	83,81	6,66	250,19	74	4,04
1990	0801	Military	Gasoline		986	2,28	871,06	1129,29	33,78	6687,29	73	2,24
1990	0801	Military	Aviation gasoline		4913	4,57	859,00	1242,60	21,90	6972,00	73	2,00
1990	0801	Military	Jet fuel	< 3000 ft	149678	4,60	250,57	24,94	2,65	229,89	72	2,30
1990	0801	Military	Jet fuel	> 3000 ft	1347105	4,60	250,57	24,94	2,65	229,89	72	2,30
1990	0802	Railways	Diesel		4010007	93,68	691,26	43,21	4,76	103,48	74	2,04
1990	0802	Railways	Kerosene		70	5,00	50,00	3,00	7,00	20,00	72	2,00
1990	0802	Railways	Gasoline		18954	2,28	871,06	1129,29	33,78	6687,29	73	2,24
1990	0803	Inland waterways	Diesel		304613	93,68	1249,33	270,13	4,35	595,20	74	3,05
1990	0803	Inland waterways	Gasoline		447167	2,28	64,34	10809,58	108,10	18485,08	73	0,52
1990	080402	National sea traffic	Residual oil		3559806	1466,99	1393,64	56,92	1,76	180,93	78	4,89
1990	080402	National sea traffic	Diesel		2782388	93,68	1334,89	54,52	1,69	173,30	74	4,68
1990	080402	National sea traffic	Kerosene		452	4,60	50,00	3,00	7,00	20,00	72	2,00
1990	080402	National sea traffic	LPG		1794		1249,00	384,90	20,30	443,00	65	2,00
1990	080403	Fishing	Residual oil		285426	1466,99	1393,64	56,92	1,76	180,93	78	4,89
1990	080403	Fishing	Diesel		10422380	93,68	1334,89	54,52	1,69	173,30	74	4,68
1990	080403	Fishing	Kerosene		25787	4,60	50,00	3,00	7,00	20,00	72	2,00
1990	080403	Fishing	Gasoline		9001	2,28	64,34	10809,58	108,10	18485,08	73	0,52
1990	080403	Fishing	LPG		42320		1249,00	384,90	20,30	443,00	65	2,00
1990	080404	International sea traffic	Residual oil		28644252	1711,49	2127,14	56,92	1,76	180,93	78	4,89
1990	080404	International sea traffic	Diesel		11632674	468,38	2037,47	54,52	1,69	173,30	74	4,68
1990	080501	Air traffic, other airports	Jet fuel	Dom. < 3000 ft	378795	2,30	310,41	16,54	1,76	100,94	72	6,35
1990	080501	Air traffic, other airports	Aviation gasoline		104947	4,57	859,00	1242,60	21,90	6972,00	73	2,00
1990	080502	Air traffic, other airports	Jet fuel	Int. < 3000 ft	136077	2,30	306,48	18,38	1,95	177,11	72	6,90
1990	080502	Air traffic, other airports	Aviation gasoline		30660	4,57	859,00	1242,60	21,90	6972,00	73	2,00
1990	080503	Air traffic, other airports	Jet fuel	Dom. > 3000 ft	910427	2,30	315,28	8,51	0,90	79,30	72	2,30
1990	080504	Air traffic, other airports	Jet fuel	Int. > 3000 ft	1612988	2,30	242,81	6,20	0,66	54,25	72	2,30

Year	SNAP ID	Category	Fuel type	Mode	Fuel [GJ]	SO_2 [g/GJ]	NO_x [g/GJ]	NMVOC [g/GJ]	CH_4 [g/GJ]	CO [g/GJ]	CO_2 [kg/GJ]	N_2O [g/GJ]
1990	0806	Agriculture	Diesel		14194891	93,68	1273,14	190,59	4,43	424,13	74	3,10
1990	0806	Agriculture	Gasoline		426773	2,28	244,33	1022,05	51,10	24741,09	73	1,80
1990	0807	Forestry	Diesel		4105	93,68	1255,79	238,29	4,37	526,70	74	3,06
1990	0807	Forestry	Gasoline		49540	2,28	48,66	18095,47	180,95	33391,26	73	0,48
1990	0808	Industry	Diesel		8091042	93,68	1285,59	176,89	4,48	395,14	74	3,13
1990	0808	Industry	Gasoline		117286	2,28	216,67	3096,74	119,76	44820,30	73	1,63
1990	0808	Industry	LPG		1991975		621,12	838,51	62,11	931,68	65	
1990	0809	Household and gardening	Gasoline		974445	2,28	213,71	3726,00	116,17	42616,59	73	1,61
1990	080501	Air traffic, Copenhagen airport	Jet fuel	Dom. < 3000 ft	441215	2,30	280,41	23,40	2,49	144,24	72	5,03
1990	080501	Air traffic, Copenhagen airport	Aviation gasoline		8642	4,57	859,00	1242,60	21,90	6972,00	73	2,00
1990	080502	Air traffic, Copenhagen airport	Jet fuel	Int. < 3000 ft	2037255	2,30	326,94	34,43	3,66	159,73	72	3,76
1990	080502	Air traffic, Copenhagen airport	Aviation gasoline		5612	4,57	859,00	1242,60	21,90	6972,00	73	2,00
1990	080503	Air traffic, Copenhagen airport	Jet fuel	Dom. > 3000 ft	1160709	2,30	330,34	9,28	0,99	93,07	72	2,30
1990	080504	Air traffic, Copenhagen airport	Jet fuel	Int. > 3000 ft	20653862	2,30	291,18	8,79	0,93	36,07	72	2,30

Year	SNAP ID	Category	Fuel type	Mode	Fuel [GJ]	SO_2 [g/GJ]	NO_x [g/GJ]	NMVOC [g/GJ]	CH_4 [g/GJ]	CO [g/GJ]	CO_2 [kg/GJ]	N_2O [g/GJ]
2001	0801	Military	Diesel		884792	2,34	557,55	62,48	5,03	175,12	74	4,58
2001	0801	Military	Jet fuel	< 3000 ft	42908	4,60	250,57	24,94	2,65	229,89	72	2,30
2001	0801	Military	Jet fuel	> 3000 ft	386176	4,60	250,57	24,94	2,65	229,89	72	2,30
2001	0801	Military	Gasoline		0	2,28	397,09	400,36	35,56	3516,78	73	10,55
2001	0801	Military	Aviation gasoline		6904	4,57	859,00	1242,60	21,90	6972,00	73	2,00
2001	0802	Railways	Diesel		2853837	2,34	691,26	43,21	4,76	103,48	74	2,04
2001	0802	Railways	Kerosene		0	5,00	50,00	3,00	7,00	20,00	72	2,00
2001	0802	Railways	Gasoline		6373	2,28	397,09	400,36	35,56	3516,78	73	10,55
2001	0803	Inland waterways	Diesel		363808	23,42	1249,33	4,35	4,35	595,20	74	3,05
2001	0803	Inland waterways	Gasoline		534065	2,28	64,34	10809,58	108,10	18485,08	73	0,52
2001	080402	National sea traffic	Residual oil		1513156	702,68	1393,60	56,90	1,76	180,90	78	4,90
2001	080402	National sea traffic	Diesel		3240423	93,68	1334,90	54,50	1,69	173,30	74	4,70
2001	080402	National sea traffic	Kerosene		522	4,60	50,00	3,00	7,00	20,00	72	2,00
2001	080402	National sea traffic	LPG		0	0,00	1249,00	384,90	20,30	443,00	65	2,00
2001	080403	Fishing	Residual oil		0	702,68	1393,60	56,90	1,76	180,90	78	4,90
2001	080403	Fishing	Diesel		8908320	93,68	1334,90	54,50	1,69	173,30	74	4,70
2001	080403	Fishing	Kerosene		1496	4,60	50,00	3,00	7,00	20,00	72	2,00
2001	080403	Fishing	Gasoline		3022	2,28	64,34	10809,60	108,10	18485,10	73	0,52
2001	080403	Fishing	LPG		19182	0,00	1249,00	384,90	20,30	443,00	65	2,00
2001	080404	International sea traffic	Residual oil		25923684	1710,72	2127,10	56,90	1,76	180,90	78	4,90
2001	080404	International sea traffic	Diesel		21388985	468,38	2037,50	54,50	1,69	173,30	74	4,70
2001	080501	Air traffic, other airports	Jet fuel	Dom. < 3000 ft	265380	2,30	326,18	16,96	1,80	116,87	72	7,66
2001	080501	Air traffic, other airports	Aviation gasoline		98664	4,57	859,00	1242,60	21,90	6972,00	73	2,00
2001	080502	Air traffic, other airports	Jet fuel	Int. < 3000 ft	244140	2,30	306,48	18,38	1,95	177,11	72	6,90
2001	080502	Air traffic, other airports	Aviation gasoline		7282	4,57	859,00	1242,60	21,90	6972,00	73	2,00
2001	080503	Air traffic, other airports	Jet fuel	Dom. > 3000 ft	588726	2,30	323,65	8,91	0,95	89,93	72	2,30
2001	080504	Air traffic, other airports	Jet fuel	Int. > 3000 ft	2621135	2,30	242,81	6,20	0,66	54,25	72	2,30

Year	SNAP ID	Category	Fuel type	Mode	Fuel [GJ]	SO_2 [g/GJ]	NO_x [g/GJ]	NMVOC [g/GJ]	CH_4 [g/GJ]	CO [g/GJ]	CO_2 [kg/GJ]	N_2O [g/GJ]
2001	0806	Agriculture	Diesel		16953370	23,42	1258,27	189,04	4,43	424,13	74	3,10
2001	0806	Agriculture	Gasoline		509707	2,28	244,33	1022,05	51,10	24741,09	73	1,80
2001	0807	Forestry	Diesel		4903	23,42	1144,55	216,87	4,37	517,55	74	3,06
2001	0807	Forestry	Gasoline		59167	2,28	48,66	18095,47	180,95	33391,26	73	0,48
2001	0808	Industry	Diesel		9663366	23,42	1174,86	166,55	4,48	394,44	74	3,13
2001	0808	Industry	Gasoline		140078	2,28	216,67	3096,74	119,76	44820,30	73	1,63
2001	0808	Industry	LPG		2379073	0,00	621,12	838,51	62,11	931,68	65	3,11
2001	0809	Household and gardening	Gasoline		1163807	2,28	213,71	3726,00	116,17	42616,59	73	1,61
2001	080501	Air traffic, Copenhagen airport	Jet fuel	Dom. < 3000 ft	325930	2,30	301,48	20,93	2,22	156,45	72	6,25
2001	080501	Air traffic, Copenhagen airport	Aviation gasoline		800	4,57	859,00	1242,60	21,90	6972,00	73	2,00
2001	080502	Air traffic, Copenhagen airport	Jet fuel	Int. < 3000 ft	3055248	2,30	322,85	29,96	3,18	169,60	72	3,81
2001	080502	Air traffic, Copenhagen airport	Aviation gasoline		1158	4,57	859,00	1242,60	21,90	6972,00	73	2,00
2001	080503	Air traffic, Copenhagen airport	Jet fuel	Dom. > 3000 ft	1059388	2,30	302,98	9,70	1,03	63,23	72	2,30
2001	080504	Air traffic, Copenhagen airport	Jet fuel	Int. > 3000 ft	27098054	2,30	291,18	8,79	0,93	36,07	72	2,30

Annex 7: Total emissions per sector for other mobile sources 1990 and 2001

Year	Sector	SNAP ID	SO_2 [tons]	NO_x [tons]	NMVOC [tons]	CH_4 [tons]	CO [tons]	CO_2 [ktons]	N_2O [tons]
2001	Military	801	4	607	75	6	302	97	5
2001	Railways	802	7	1975	126	14	318	212	6
2001	Inland waterways	803	10	489	5775	59	10089	66	1
2001	National sea traffic	80402	1367	6434	263	8	835	358	23
2001	Fishing	80403	835	11916	526	16	1608	661	42
2001	International sea traffic	80404	54366	98722	2641	82	8396	3605	228
2001	Air traffic, Dom. < 3000 ft.	80501	2	270	135	3	775	50	4
2001	Air traffic, Int. < 3000 ft.	80502	8	1068	107	10	620	238	13
2001	Air traffic, Dom. > 3000 ft.	80503	4	512	16	2	120	119	4
2001	Air traffic, Int. > 3000 ft.	80504	68	8527	255	27	1120	2140	68
2001	Agriculture	806	398	21457	3726	101	19801	1292	54
2001	Forestry	807	0	8	1072	11	1978	5	0
2001	Industry	808	227	12861	4038	208	12306	880	38
2001	Household and gardening	809	3	249	4336	135	49598	85	2
1990	Military	801	21	494	57	5	422	119	4
1990	Railways	802	376	2788	195	20	542	298	8
1990	Inland waterways	803	30	409	4916	50	8447	55	1
1990	National sea traffic	80402	5483	8678	355	11	1127	484	30
1990	Fishing	80403	1395	14365	698	20	2044	799	50
1990	International sea traffic	80404	54473	84632	2265	70	7199	3095	195
1990	Air traffic, Dom. < 3000 ft.	80501	2	339	158	4	894	67	5
1990	Air traffic, Int. < 3000 ft.	80502	5	739	118	9	602	159	9
1990	Air traffic, Dom. > 3000 ft.	80503	5	667	18	2	177	149	5
1990	Air traffic, Int. > 3000 ft.	80504	51	6406	192	20	832	1603	51
1990	Agriculture	806	1331	18176	3142	85	16579	1082	45
1990	Forestry	807	1	8	897	9	1656	4	0
1990	Industry	808	758	11664	3465	174	10310	737	26
1990	Household and gardening	809	2	208	3631	113	41528	71	2

Annex 8: Uncertainty estimate calculation schemes for CO_2, CH_4 and N_2O in transport

		Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t
			Input data Gg CO2	Input data Gg CO2	Input data %	Input data %	%	%
Civil Aviation	Aviation Gasoline	CO2	8,29	7,26	2	5	5,385	0,003
	Jet Kerosene	CO2	208,16	161,24	2	5	5,385	0,061
Road Transportation	Gasoline	CO2	4.914,00	6.024,98	2	5	5,385	2,269
	Diesel Oil	CO2	4.436,10	5.247,87	2	5	5,385	1,976
Railways	Diesel Oil	CO2	298,13	211,65	2	5	5,385	0,080
Navigation	Residual Oil	CO2	277,66	118,03	2	5	5,385	0,044
	Gas/Diesel Oil	CO2	228,47	266,75	2	5	5,385	0,100
Agriculture	Diesel Oil	CO2	1050	1255	20	5	20,616	1,809
	Gasoline	CO2	31	37	20	5	20,616	0,054
Forestry	Diesel Oil	CO2	0	0	20	5	20,616	0,001
	Gasoline	CO2	4	4	20	5	20,616	0,006
Industry	Diesel Oil	CO2	599	715	20	5	20,616	1,031
	Gasoline	CO2	9	10	20	5	20,616	0,012
	LPG	CO2	129	155	20	5	20,616	0,187
Household and gardening	Gasoline	CO2	71	85	20	5	20,616	0,103
	Total	CO2	12264,2312	14299,127				13,460
	Total uncertainties				**Overall uncertainty in the year (%):**			**3,669**

		Gas	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
			%	%	%	%	%
Civil Aviation	Aviation Gasoline	CO2	-0,000196	0,0006	-0,0010	0,0017	0,0019
	Jet Kerosene	CO2	-0,006641	0,0131	-0,0332	0,0372	0,0499
Road Transportation	Gasoline	CO2	0,024009	0,4913	0,1200	1,3895	1,3947
	Diesel Oil	CO2	0,006152	0,4279	0,0308	1,2103	1,2107
Railways	Diesel Oil	CO2	-0,011082	0,0173	-0,0554	0,0488	0,0738
Navigation	Residual Oil	CO2	-0,016769	0,0096	-0,0838	0,0272	0,0882
	Gas/Diesel Oil	CO2	3,03E-05	0,0218	0,0002	0,0615	0,0615
Agriculture	Diesel Oil	CO2	0,002431	0,1023	0,0122	2,8933	2,8933
	Gasoline	CO2	7,22E-05	0,0030	0,0004	0,0858	0,0858
Forestry	Diesel Oil	CO2	7,04E-07	0,0000	0,0000	0,0008	0,0008
	Gasoline	CO2	8,38E-06	0,0004	0,0000	0,0100	0,0100
Industry	Diesel Oil	CO2	0,001386	0,0583	0,0069	1,6492	1,6492
	Gasoline	CO2	1,98E-05	0,0007	0,0001	0,0197	0,0197
	LPG	CO2	0,0003	0,0106	0,0015	0,2986	0,2986
Household and gardening	Gasoline	CO2	0,000165	0,0058	0,0008	0,1641	0,1641
	Total	CO2					14,64540184
	Total uncertainties				**Trend uncertainty (%):**		**3,827**

		Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t
			Input data Gg CH4	Input data Gg CH4	Input data %	Input data %	%	%
Civil Aviation	Aviation Gasoline	CH4	0,00	0,00	2	100	100,020	0,058
	Jet Kerosene	CH4	0,00	0,00	2	100	100,020	0,076
Road Transportation	Gasoline	CH4	2,27	2,92	2	40	40,050	31,285
	Diesel Oil	CH4	0,35	0,34	2	40	40,050	3,591
Railways	Diesel Oil	CH4	0,02	0,01	2	100	100,020	0,369
Navigation	Residual Oil	CH4	0,01	0,00	2	100	100,020	0,071
	Gas/Diesel Oil	CH4	0,01	0,01	2	100	100,020	0,189
Agriculture	Diesel Oil	CH4	0	0	20	100	101,980	2,048
	Gasoline	CH4	0	0	20	100	101,980	0,710
Forestry	Diesel Oil	CH4	0	0	20	100	101,980	0,001
	Gasoline	CH4	0	0	20	100	101,980	0,292
Industry	Diesel Oil	CH4	0	0	20	100	101,980	1,179
	Gasoline	CH4	0	0	20	100	101,980	0,457
	LPG	CH4	0	0	20	100	101,980	4,027
Household and gardening	Gasoline	CH4	0	0	20	100	101,980	3,684
	Total	CH4	3,03838247	3,7424274				1027,973
	Total uncertainties						**Overall uncertainty i the year (%):**	**32,062**

		Gas	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
			%	%	%	%	%
Civil Aviation	Aviation Gasoline	CH4	-0,000292	0,0007	-0,029176864	0,002027498	0,029247224
	Jet Kerosene	CH4	-0,000564	0,0009	-0,056442996	0,002653993	0,056505358
Road Transportation	Gasoline	CH4	0,043366	0,9621	1,734653411	2,721343515	3,227186543
	Diesel Oil	CH4	-0,032878	0,1104	-1,315129826	0,312395732	1,351723919
Railways	Diesel Oil	CH4	-0,00345	0,0045	-0,344968901	0,012856646	0,345208395
Navigation	Residual Oil	CH4	-0,001664	0,0009	-0,166406514	0,002478984	0,166424978
	Gas/Diesel Oil	CH4	-0,000116	0,0023	-0,011582793	0,006574939	0,013318818
Agriculture	Diesel Oil	CH4	-0,000774	0,0247	-0,077415121	0,699602936	0,70387312
	Gasoline	CH4	-0,000268	0,0086	-0,026834926	0,242475273	0,243955675
Forestry	Diesel Oil	CH4	-2,21E-07	0,0000	-2,20869E-05	0,000199559	0,000200778
	Gasoline	CH4	-0,00011	0,0035	-0,011030683	0,099666939	0,100275494
Industry	Diesel Oil	CH4	-0,000446	0,0142	-0,044561602	0,402669238	0,405127451
	Gasoline	CH4	-0,000173	0,0055	-0,017283274	0,15616438	0,15711787
	LPG	CH4	-0,001522	0,0486	-0,152184991	1,375575792	1,38396858
Household and gardening	Gasoline	CH4	-0,001392	0,0445	-0,139242975	1,258551401	1,266230719
	Total	CH4					16,66551279

	Total uncertainties	**Trend uncertainty (%):**	**4,082**

		Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t
			Input data Gg N2O	Input data Gg N2O	Input data %	Input data %	%	%
Civil Aviation	Aviation Gasoline	CH4	0,00	0,00	2	1000	1000,002	0,146
	Jet Kerosene	CH4	0,01	0,01	2	1000	1000,002	5,774
Road Transportation	Gasoline	CH4	0,15	0,88	2	50	50,040	32,175
	Diesel Oil	CH4	0,27	0,35	2	50	50,040	13,048
Railways	Diesel Oil	CH4	0,01	0,01	2	1000	1000,002	4,326
Navigation	Residual Oil	CH4	0,02	0,01	2	1000	1000,002	5,447
	Gas/Diesel Oil	CH4	0,01	0,02	2	1000	1000,002	12,004
Agriculture	Diesel Oil	CH4	0,04	0,05	20	1000	1000,200	38,656
	Gasoline	CH4	0,00	0,00	20	1000	1000,200	0,675
Forestry	Diesel Oil	CH4	0,00	0,00	20	1000	1000,200	0,011
	Gasoline	CH4	0,00	0,00	20	1000	1000,200	0,021
Industry	Diesel Oil	CH4	0,03	0,03	20	1000	1000,200	22,249
	Gasoline	CH4	0,00	0,00	20	1000	1000,200	0,167
	LPG	CH4	0,01	0,01	20	1000	1000,200	5,429
Household and gardening	Gasoline	CH4	0,00	0,00	20	1000	1000,200	1,373
	Total	N2O	0,55042987	1,3611741				3452,500

	Total uncertainties					**Overall uncertainty i the year (%):**		**58,758**

		Gas	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
			%	%	%	%	%
Civil Aviation	Aviation Gasoline	N2O	-0,000658	0,0004	-0,658309891	0,001022577	0,658310685
	Jet Kerosene	N2O	-0,027884	0,0143	-27,88419895	0,040389228	27,8842282
Road Transportation	Gasoline	N2O	0,910392	1,5901	45,51961232	4,497355926	45,74124305
	Diesel Oil	N2O	-0,57595	0,6448	-28,797492	1,823815146	28,85518753
Railways	Diesel Oil	N2O	-0,026232	0,0107	-26,23185078	0,030261089	26,23186824
Navigation	Residual Oil	N2O	-0,064715	0,0135	-64,71489864	0,038097422	64,71490985
	Gas/Diesel Oil	N2O	-0,03303	0,0297	-33,03046173	0,083959236	33,03056844
Agriculture	Diesel Oil	N2O	-0,102237	0,0956	-102,2371008	2,703274297	102,2728335
	Gasoline	N2O	-0,001787	0,0017	-1,786635287	0,047203713	1,78725875
Forestry	Diesel Oil	N2O	-2,92E-05	0,0000	-0,02918608	0,000771099	0,029196265
	Gasoline	N2O	-5,49E-05	0,0001	-0,054893645	0,001450295	0,0549128
Industry	Diesel Oil	N2O	-0,058864	0,0550	-58,86440652	1,55591886	58,88496615
	Gasoline	N2O	-0,000443	0,0004	-0,442916035	0,011701919	0,443070592
	LPG	N2O	-0,014369	0,0134	-14,36851828	0,37966012	14,3735333
Household and gardening	Gasoline	N2O	-0,003634	0,0034	-3,63397193	0,096012571	3,635240075
	Total	N2O					23820,37525

	Total uncertainties				**Trend uncertainty (%):**		**154,339**

Appendix 7

The specific methodologies regarding Industrial Processes

Appendix 7.

The specific methodologies regarding Industrial Processes. CRF Table 2(I), Table 2(I).A-G, Table 2(II), Table 2(II).C,E, and Table 2(II).F.

Mineral Products

Lime and bricks

The CO_2 emission from production of Lime is calculated according to the IPCC guidelines, Reference Manual p2.8, with the emission factor of 0,79 kg CO_2 / kg Lime. This emission factor is multiplied by activity data from production statistics published by Statistics Denmark, refer the Table below.

The emission factor from production of yellow bricks is calculated the following way. When limestone ($CaCO_3$) is heated it decomposes into lime (CaO) and CO_2. Using the molecular weights, implies that 44 kg of CO_2 is emitted for every 100 kg $CaCO_3$ decomposed. Since clay used to produce yellow bricks contains 18% of limestone, the emission factor is 0.18*0.44=0.079 kg CO_2 / kg yellow bricks. This emission factor is multiplied by activity data from production statistics published by Statistics Denmark. This Statistics accounts for the number of bricks produced, the average weight of a brick is estimated to 2 kg. Refer the Table below for the data and the emissions calculated.

The activity data and the resulting emissions from production of lime and bricks are aggregated in the CRF, in Table 2(I).A-G sheet 1. The underlying data and the resulting aggregated data are given in the table below.

Table. Production of Lime and Bricks, CO_2 emission factors and CO_2 emissions.

Year	**Lime** Production	CO2 emission	**Yellow Bricks** Production	CO2 emission	**Lime and Bricks** Production	CO2 emission	Combined emission factor
	(1)	(2)	(3)	(4)	(5)	(5)	(5)
	(t)	(Mg)	(t)	(Mg)	(kt)	(Gg)	(t/t)
1990	126706	99555	291348	23016	418,05	122,57	0,29
1991	86226	67749	291497	23028	377,72	90,78	0,24
1992	104526	82128	301908	23851	406,43	105,98	0,26
1993	106587	83747	278534	22004	385,12	105,75	0,27
1994	112480	88377	389803	30794	502,28	119,17	0,24
1995	100929	79301	365149	28847	466,08	108,15	0,23
1996	95028	74665	397206	31379	492,23	106,04	0,22
1997	102587	80604	419431	33135	522,02	113,74	0,22
1998	88922	69867	423254	33437	512,18	103,30	0,20
1999	95137	74751	405241	32014	500,38	106,76	0,21
2000	92002	72287	412082	32554	504,08	104,84	0,21
2001	96486	75810	351955	27804	448,44	103,61	0,23

Notes:
(1) Statistics Denmark: Sales Statistics for manifactoring industries.
(2) Emission factor 0,786 kg CO2/kg; 1996 IPCC guidelines; reference manual p. 2.8
(3) Statistics Denmark: Sales Statistics for manifactoring industries, assuming that of the bricks produced and sold, 50% is yellow bricks each with and average weight of 2 kg.
(4) Emission factor 0,079 kg CO2/kg, further information in the text.
(5) Corresponding to the values in the CRF Table 2(I).A-Gs1, A.2. in this report for the respective years (apart from roundings).

F-gases, HFCs, PFCs and SF_6

The data for emissions on HFCs, PFCs and SF_6 has been obtained in continuation of work on inventories for previous years. The methods used has been more and more advanced due to IPCC Guidelines becoming available and the ability to gather more detailed data.

The determination of emissions includes the quantification and determination of any import and export of HFCs, PFCs, and SF_6 contained in products, and takes into account the substances in stock form. This is in accordance with the latest and most accurate method of determination, which is Tier 2 method of the Guidelines .

The following sources of information has been used:

- Importers, agency enterprises, wholesalers, and suppliers
- Consuming enterprises, and trade and industry associations
- Recycling enterprises and chemical waste recycling plants
- Statistics Denmark
- Danish Refrigeration Installers' Environmental Scheme (KMO)
- Previous evaluations of HFCs, PFCs and SF_6

Data is primarily based on respondents from enterprises and importers resulting from a questionnaire survey.

The Tier 2 – Bottom-up analysis used for determination of emissions from HFCs, PFCs, and SF_6 covers the following activities:

- Screening of the market for products in the F-gases are used.
- Determination of averages for the content of F-gases per product unit.
- Determination of emissions during the lifetime of products and disposal.
- Identification of technological development trends that have significance for the emission of F-gases.
- Calculation of import and export on the basis of defined key figures, and information from Statistics Denmark on foreign trade and industry information.

The determination of emissions of F-gases is based on a calculation of the *actual emission*. The actual emission is the emission in the evaluation year, accounting for the time lapse between consumption and emission. The actual emission includes Danish emissions from production, from products during their lifetimes, and from waste products. The actual emissions for the specific areas of application are determined on the grounds of the following analyses:

Consumption and emissions F-gases are wherever possible carried out for individual substances, even though the consumption of certain HFCs has been very limited. This has been done to ensure transparency of evaluation in the determination of GWP values. However, the continued use of a category for "Other HFCs" has been necessary since not all importers and suppliers have specified records of sales for individual substances.

The substances has in the survey been accounted for according to their trade names. In the transfer to the "pure" substances used in the CRF reporting schemes the following relations has been used.

Table. The composition (weight percent) of HFCs mixtures (trade names) as compared to pure HFCs substances reported in the CRF.

Pure HFCs HFC Mixtures	HFC-32	HFC-125	HFC-134a	HFC-143a	HFC-152a
HFC-401a					13%
HFC-402a		60%			
HFC-404a		44%	4%	52%	
HFC-407a	23%	25%	52%		
HFC-410a		7%		46%	
HFC-507a		50%		50%	

Potential emissions.
For the potential emissions put into the CRF Tables the following has been used.

Potential emission = import + production - export - destruction/treatment.

Uncertainty
Uncertainty varies from substance to substance. Uncertainty is greatest for HFC-134a due to its widespread application in products that are imported and exported. The biggest uncertainty in the areas of application is judged to arise from the consumption of HFC-404a and HFC-134a in commercial refrigerators and mobile refrigerators. The uncertainty on year to year data is influenced by the uncertainty on the rate at which the emissions are released, which results in significant differences in the emission determinations in the short term (approx. five years), differences that balances out in the long term.

The average degree of uncertainty in the report's consumption figures (sold and bought quantities) is estimated at approx. 10-15%, and slightly greater for data regarding the areas of application. The degree of uncertainty in the determination of actual emissions is estimated at 20-25% depending on import/export information on the actual products.

Appendix 8

Solvents

15 April 2003

Appendix 8 Solvents

Methodology and references

Solvent and other product use (CRF: 3 SNAP: 06)

Use of solvents is an important source of evaporation of NMVOC and contributed in 2000 with approximately 26 % of the total NMVOC emission. The most important sectors for industrial use of solvents are: Car repairing and treatment, chemical industry, paint application in iron and steel industry, paint manufacturing, the plastic industry, the foodstuff industry, preservation of wood and the printing industry. For these sectors the Government and the industries agreed to reduce the emissions of NMVOC by 40 % from 1988 to 2000. The reduction targets for each trade was estimated by trades and companies.

As a part of an agreement between the Danish Industry and the Danish Environmental Protection Agency the emissions from various industries have been reported to the Danish EPA. The reporting is not annual and linear interpolation is used between the reporting years.

In the Danish inventory emission estimates for solvent use are made for paint application (SNAP category 0601) in the sectors: construction and buildings, domestic use, boat building and wood. Chemical product manufacturing and processing includes: polyester processing, polyurethane processing, polystyrene foam processing, paint manufacturing, glues manufacturing and other product manufacturing and processing (SNAP category 0603). The use of solvents in “Other use of solvents and related activities” (SNAP category 0604) takes places in the sectors: printing industry, fat, edible and non edible oil extraction, application of glues and adhesives, underseal treatment and conservation of vehicles, domestic solvent use and other uses (Reference: Report from the Danish EPA, 1995, no. 50, VOC reduction plants (in Danish).

It is important to notice that not all the use of solvents are included in this agreement and no activity data has been available. Efforts are still to be made in the future inventory work to improve the emission estimates.

Use of solvents. NMVOC emissions for various sectors [tonnes] (Reference: Report from the Danish EPA, 1995, no. 50, VOC reduction plants (in Danish))

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
0601	**Paint application**	0											
060101	Paint application : manufacture of automobiles												
060102	Paint application : car repairing	0	0	0	0	0	0	0	0	0	0		
060103	Paint application : construction and buildings	9452	9497	9542	9586	9631	9676	9721	9766	9810	9855	9900	9900
060104	Paint application : domestic use (except 06.01.07)	9452	9497	9542	9586	9631	9676	9721	9766	9810	9855	9900	9900
060105	Paint application : coil coating												
060106	Paint application : boat building	0	0	0	0	0	0	0	0	0	0		
060107	Paint application : wood	6500	6192	5884	5576	5276	4960	4652	4344	4036	3728	3420	3420
060108	Other industrial paint application	0	0	0	0	0	0	0	0	0	0		
060109	Other non industrial paint application												
0603	**Chemical products manufacturing or processing**												
060301	Polyester processing	470	478	486	494	502	510	518	526	534	542	550	550
060302	Polyvinylchloride processing												
060303	Polyurethane processing	3	3	3	3	3	3	3	4	4	4	4	4
060304	Polystyrene foam processing (c)	920	919	918	917	916	915	913	913	912	911	910	910
060305	Rubber processing												
060306	Pharmaceutical products manufacturing												
060307	Paints manufacturing	300	298	296	294	292	290	288	286	284	282	280	280
060308	Inks manufacturing												
060309	Glues manufacturing	24	23	22	20	19	18	17	16	14	13	12	12
0603010	Asphalt blowing												
0603011	Adhesive, magnetic tapes, films and photographs												
060314	Other	930	877	823	770	716	663	610	556	503	449	396	396
0604	**Other use of solvents and related activities**												
060401	Glass wool enduction												
060402	Mineral wool enduction												
060403	Printing industry	1575	1462	1349	1235	1122	1009	896	783	669	556	443	443
060404	Fat, edible and non edible oil extraction	1920	1893	1866	1839	1812	1785	1758	1731	1704	1777	1650	1650
060405	Application of glues and adhesives	2700	2580	2460	2340	2220	2100	1980	1860	1740	1620	1500	1500
060406	Preservation of wood	0	0	0	0	0	0	0	0	0	0		
060407	Underseal treatment and conservation of vehicles	1400	1345	1290	1290	1180	1125	1070	1015	960	905	850	850
060408	Domestic solvent use (other than paint application)(	6653	6807	6961	7115	7269	7423	7576	7730	7884	8038	8192	8192
060409	Vehicles dewaxing												
060411	Domestic use of pharmaceutical products (k)												
060412	Other (preservation of seeds,...)	0	0	0	1696	0	0	0	0	0	0		

Reference: Danish EPA, 1995, Report no. 50, VOC reduction plants (in Danish)

Appendix 9

Agriculture

15 April 2003

Appendix 9 Agriculture

Appendix 9 Agriculture

The emission of greenhouse gases from the agricultural sector includes emissions of CH_4 from enteric fermentation and manure management and emission of N_2O from manure management and agricultural soils. The emissions are reported in CRF – table 4.A, 4.B(a), 4.B(b) and 4.D.

9.1 Trends

In CO_2 equivalents the agricultural sector contribute with about 20% of the total emission of greenhouse gases. From 1990 to 2001 the emissions have decreased from 11,4 Gg CO_2-equ. to 11,5 Gg CO_2-equ. Which responds to a 20%-reduction (table 1).

Table 1. Emission of GHG in the agricultural sector in Denmark 1990 – 2001 (CRF)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						Gg CO_2 – equ.						
N_2O	10,259	10,030	9,399	9,485	9,200	9,134	8,842	8,486	8,563	8,505	8,293	7,918
CH_4	4,089	4,066	4,042	4,133	3,974	3,977	3,960	3,868	3,897	3,578	3,575	3,632
Total	14,348	14,096	13,441	13,618	13,174	13,111	12,803	12,354	12,460	12,083	11,868	11,550

Figure 1 shows the distribution of greenhouse gas emission from the various sources. The figure shows that the reduction up to 2001 mainly is caused by a decrease of N_2O emission from agricultural soils. This is due to the offensive National environmental policy during the last twenty years. Due to The Action Plan on the Aquatic Environment and The Ammonia Action Plan a series of measures to prevent loss of nitrogen in the agricultural production has been initiated. The measures have included i.e. demands to a improved utilisation of nitrogen in husbandry manure, ban against application of husbandry manure in winter, demand on establishment of green field during the winter, regulation of the number of animals per hectare and a ceiling for the supply of nitrogen to crops. This means that despite an increase in the livestock production both the evaporation of ammonia and the N-excretion per animal has been reduced considerably.

The emission of CH_4 are in the period 1990 to 2001 reduced with 11%, which is coursed by a decrease of dairy cattle as a consequence of an improved milk yield.

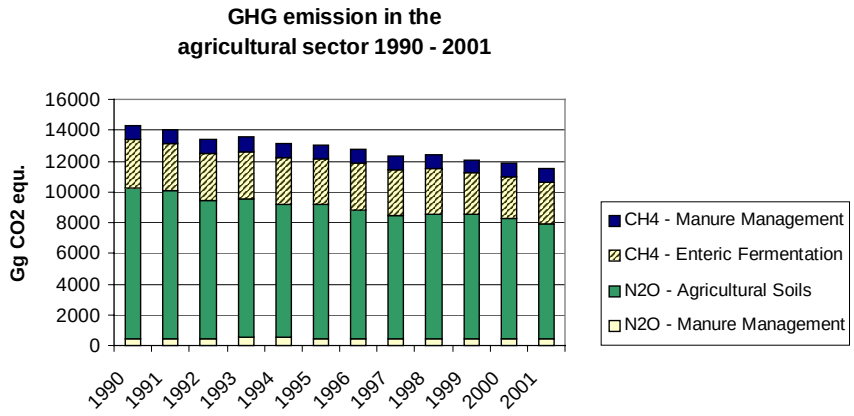

Figure 1.Danish greenhouse gas emission 1990 - 2001

9.2 Methods and assumptions

The calculations of the emissions are based on methods described in the IPCC Guideline (IPCC, 1996) and in the Good Practice Guidance (IPCC, 2000). There has been no chance in the methods of the evaluation of the previous years. Emission from rice production, burning of savannas and crop residues is not relevant for the situation in Denmark. Therefor the table 4C, 4E and 4F has not been completed. Burning of plant residue has been prohibited since 1989 and may only take place in connection with cultivation of seed grass. It is estimated that the emissions from burning of straw from the seed grass production is so small that it is not included in the emission inventory.

Presently a thorough investigation of the method for the emission inventory of greenhouse gases from the agricultural sector is being performed. This work is expected to be completed the summer of 2003. Based on this investigation change in the data on activity and the emission factors for the whole period from 1990 to 2001 might occur. In section 9.9 these changes will be mentioned briefly. The revision is planned to be implemented in the emission inventory for 2002.

9.3 References – sources of information

Data on activity and emissions are collected, evaluated and discussed in corporation with institutes occupied with research or administration in the agricultural sector. These institutes are Statistic Denmark, Danish Institute of Agricultural Sciences, The Danish Agricultural Advisory Centre, The Danish Plant Directorate and Ministry of the Environment. A more detailed description of the methods of inventory is given by Andersen, 1999 and Olesen et al., 2001.

Table 2. List of institutes and persons involved

References	**Abbreviation**	**Data / information**
National Environmental Research Institute Cand. scient. PhD, Ruth Grant Cand. agro. PhD, Steen Gyldenkærne Cand. agro. Mette Hjorth Mikkelsen	NERI	-reporting -data collecting
Statistics Denmark - Agricultural Statistic (www.dst.dk)	DS	-No. of animal -milk yield -slaughtering data -land use -crop production
Danish Institute of Agricultural Sciences Cand. agro. PhD, Sven G. Sommer Cand. agro. PhD, Jørgen E. Olesen Cand. agro. scient, PhD Søren O. Petersen Cand. agro. PhD, Arne Kyllingsbæk Cand. agro. PhD, Christen Duus Børgesen Cand. agro. scient, PhD Hanne D. Poulsen	DIAS	-N-excretion -feeding situation -growth -N-fixed crops -crop residue -N-leaching/runoff -NH_3 emissions factor
The Danish Agricultural Advisory Centre Cand. agro. Niels Lundegaard Cand. agro. Jan Brøgger Rasmussen Cand. agro. Ole Aaes	AAC	-stable type -grassing situation -manure application time and methods
Danish Environmental Protection Agency	EPA	-sewage sludge used as fertiliser -industrial waste used as fertiliser
The Danish Plant Directorate	PD	-organic farming -synthetic fertiliser

9.4 CH_4 emissions

The majority of the CH_4 emission from agriculture, corresponding to approximately 75%, origins from the enteric fermentation process. The contribution from cattle amounts to approximately 80%. The emissions from storage of husbandry manure make up 25% of total emission.

The numbers of animals are taken from the Agricultural Statistic (Statistic, Denmark) and number of horses and goats are collected at The Danish Agricultural Advisory Centre. Because the Agricultural statistic has a lower bound on agricultural farms by 5 hectare.

9.4.1 Enteric Fermentation

The CH_4 emissions from enteric fermentation is given in CRF in table 4.A. The emission factor for cattle is based on tier 2 approach described in the IPCC Guideline. For the other categories of livestocks the IPCC default values are applied. Goats have not been included in the inventory, because there is only approximately 10.000 in Denmark. However, this is planned to be included in the emission inventory 2002.

In appendix 9.1 the data used for calculation of the emission factor is given. Data on food intake, milk yield and growth etc. are collected by Danish Institute of Agricultural Sciences (Poulsen et al., 2001). The data are based on an inventory on feeding praxis and inventory in relation to the National control system.

Table 3. Animal categories and emission factor for estimating CH_4 emission from enteric fermentation.

Activity data			Method	Emission factor
				kg CH_4/head/yr
Cattle	Dairy Cattle		Tier 2	104
	Non-Dairy Cattle	Calves, heifers, bulls, suckling cattle	Tier 2	37
Sheep		Breeding ewes	Tier 1	8
Horses			Tier 1	18
Swine	Sows		Tier 1	1,5
	Slaughter pigs		Tier 1	1,5
Goats[1]				Inventory - 2002
Poultry				Not estimated
Fur farming				Not estimated

[1] Goats will be included in the emission inventory for 2002.

In the emission inventory the same emission factor for cattle has been applied all years. This implies that the data used for calculation of the emission factors in CRF given in table 4.a. and 4.B(a) are the same for all the years from 1990 to 2001. Due to change in the composition of food and developments in the field of genetic elevation the emission factors might differ. In Denmark data are available which makes it possibly to calculate the emission factor for each year. It is planned that annual emission factors will be calculated and applied in the emission inventory from 2002.

9.4.2 Manure Management

The emission from storage of husbandry manure is given in CRF in table 4.B(a). National data for all categories off livestock is applied. The tier 2 approach is given in the IPCC guideline (IPCC, 1996). The data used for calculation are given in appendix 9.2.

Table 4. Animal categories and emission factor for estimating CH_4 emission from manure management.

Activity data			Method	Emission factor
				kg CH4/head/yr
Cattle	Dairy Cattle		Tier 2	21,8
	Non-Dairy Cattle	Calves, heifers, bulls, suckling cattle	Tier 2	1,6
Sheep		Breeding ewes	Tier 2	0,46
Horses			Tier 2	1,1
Swine	Sows		Tier 2	6,0
	Slaughter pigs		Tier 2	2,1
Poultry	Laying hens		Tier 2	0,066
	Broilers		Tier 2	0,024
	Other poultry	Turkey, duck and geese	Tier 2	0,057
Goats[1]				Inventory - 2002
Fur farming				Inventory - 2002

[1] Goats will be included in emission inventory for 2002.

The emission factor for dairy cattle are higher than the IPCC default values and contrary for non dairy cattle the emission factor are lower than the IPCC default values. This can be explained by differences in manure systems. In appendix 9.3 all stable types for all livestock categories are given. A large part of the non-dairy cattle are in stable-systems with deep litter. This implies that the emission factor is relative low because the MCF (metan conversion factor) for dry lot according to IPCC is 1%.

The same emission factor is used for all years. However the emission factors are calculated based on manure conditions in 1995. Changes in stable types and in the grassing period will shift the manure types, which influences the annual variation in the emission factor. It is planned that this will be included in the emission inventory for 2002.

In Good Practice Guidance (IPCC, 2000) the MCF for liquid manure is changed to 39%. However, in this inventory the MCF is maintained on 10% since this match the climate conditions under which Massé et al., 2003 and Husted, 1994 performer their investigations.

Concerning the data used for the assignment of the distributions of husbandry manure on various manure systems (table 4.B(a)) it should be noted the distributions of non-dairy cattle is based on a weighted distribution of manure from calves, heifer, bulls and suckling cattle. The distribution in the separate categories varies substantially depending on stabling (table 5). Corresponding variation can be found for swine. The shown distribution cower only pigs for slaughtering

9.4.3 Implied emission factor

In table 6 the implied emission factor for each livestock category for each year is given. This is calculated as the total emission divided by the number of animals. It can been seen that the implied emission factor for manure management varies for dairy cattle, pigs and poultry, despite that for the whole period the same emission factor is applied.

For dairy cattle the CH_4 emission in the period 1990-1998 is lower because of the production of biogas. However, in the period 1999-2001 the biogas production is not included in the calculations. Quantification of the expected reduction in the CH_4 emission is currently being prepared and it is planned to apply in the emission inventory 2002.

The indirect emission factor for pigs varies in the period 1990-1998 between 2.45 to 2.47 which due to the difference in the distribution of slaughter pigs and sows having different emission factors – see table 4. The higher implied emission factor for the years 1999-2001 from 2.53 to 5.54 is caused by changes in the method. It is planned that this will be corrected in the emission inventory 2002.

The category of poultry is a combination of broilers, hens and other poultry as ducks, geese an turkeys which has different emission factors – see table 4. The indirect emission factor for all poultry varies through the years

because the composition of different poultry groups differs. By a mistake there have been a double counting of poultry. The number of animal in they year of 1990 and 1992 in CRF table 4.B(a) should be revised to 21,327 and 22,907 (1000 head), respectively.

Table 6. Implied emission factor - CH_4

Implied emission factor	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
						kg CH_4/head/yr						
4.A Enteric Fermentation												
1. Cattle												
Dairy Cattle	104,00	104,00	104,00	104,00	104,00	104,00	104,00	104,00	104,00	104,00	104,00	104,00
Non-Dairy Cattle	37,40	37,00	37,00	37,00	37,00	37,00	37,00	37,00	37,00	37,00	37,00	37,00
3. Sheep	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00	8,00
6. Horses	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00	18,00
8. Swine	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50	1,50
9. Poultry	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4.B Manure Management												
1. Cattle												
Dairy Cattle	21,43	21,19	21,01	20,87	20,50	20,17	20,05	19,61	19,29	21,80	21,80	21,80
Non-Dairy Cattle	1,60	1,60	1,60	1,60	1,60	1,60	1,60	1,60	1,60	1,60	1,60	1,60
3. Sheep	0,46	0,46	0,46	0,46	0,46	0,46	0,46	0,46	0,46	0,46	0,46	0,46
6. Horses	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10	1,10
8. Swine	2,47	2,47	2,47	2,45	2,45	2,46	2,46	2,47	2,45	2,54	2,54	2,53
9. Poultry	0,030	0,032	0,031	0,031	0,032	0,032	0,031	0,031	0,030	0,034	0,033	0,033

9.5 N_2O emissions

Figure 2 shows the distributions of sources of nitrogen oxide emission from the agricultural sector. The main part origins from agricultural soils as direct emission of which the largest sources are husbandry manure and synthetic fertiliser applied on agricultural soil and from crops residue left on the field after harvest. The indirect N_2O emission includes emissions from nitrogen leaching and from atmospheric deposition.

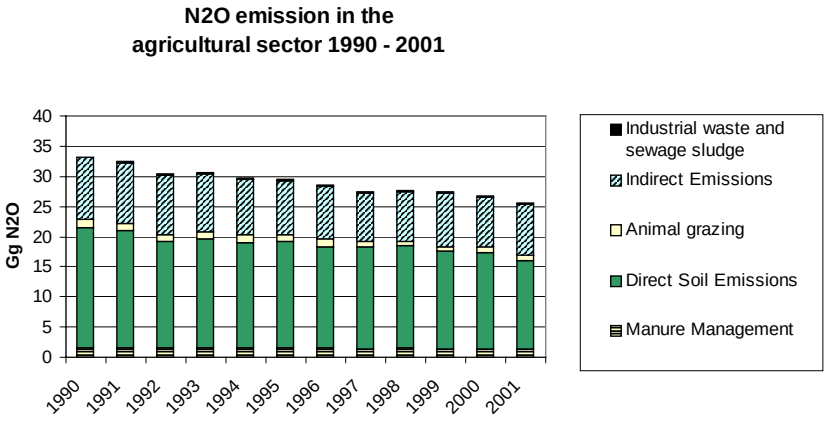

Figure 2. N_2O emission from agriculture 1990 - 2001

Emission of N_2O is closely related to nitrogen balance. This means that a series of the data applied in relation to the inventory of ammonia emissions simultaneously are being applied in the calculation of N_2O emissions. In Denmark a model based system for calculation of the emission of ammonia (Hutchings et al., 2001) is used. This system is also used to calculate the N_2O emission from husbandry manure. The system is based on 27 different livestock categories depending on type of livestock and weight class. All several stable types are all together gives 150 different classes. Further each category is separated in to stable type systems. For each of these categories the NH_3 emission is calculated based on information on i.e. N-excretion, days of grassing,

nitrogen content in manure, the distribution of the different types of manure and NH_3 evaporation in stables, during storage and in relation to the application of manure on the fields. Data for the calculation is collected at Danish Institute of Agricultural Sciences, Danish Agricultural Advisory Centre and Statistic Denmark. In appendix 9.3 a list over the different livestock categories are shown and some of the parameters from the NH_3 model, which is applied in the calculations of the N_2O emission.

9.5.1 Manure Management

The emission of N_2O from manure management is given in CRF table 4.B(b). The data for the N-excretion and the distribution on the different types of manure is taken from the NH_3 model. As emission factors for N_2O the IPCC default values are applied.

Table 7. Data and emissions factor used in estimation of N_2O *emission from manure management*

Emission source	**Activity data**	**References**	**Emission factor kg N_2O -N/kg N**	**References**
4.B(b) Manure Management	- N-excretion in stable - Fraction of different manure type	NERI[1]	Liquid + slurry = 0.001 Solid st. + dry lot = 0.02	IPCC, 2000 - table 4.12

[1] Data from the NH_3 estimation model (appendix 9.3)

9.5.2 Agricultural Soils

In table 8 a list of data applied in the calculation of N_2O emissions from agricultural soils is given including relevant references. The emission is given in CFR in table 4.D. National data for the evaporation of ammonia from the NH_3 model is applied to calculate the nitrogen content of the manure. In the estimation of N_2O emissions the IPCC default values are applied.

Table 8. Data and emissions factor used in estimation of N_2O emission from agricultural soils.

Emission source	Activity data	References	Emission factor kg N_2O -N/kg N	References
4.D Agricultural Soils				
1. Direct soil emissions				
1a. Synthetic Fertiliser	- N in fertiliser - fertiliser type - NH_3 emission = 2%	PD - DIAS	0.0125	IPCC, 2000 - table 4.17
1.b Animal wastes applied to soils	- N-excretion in stable - NH_3 emission = 28.3%	NERI[1]	0.0125	IPCC, 2000 - table 4.17
1.c N-fixing crops	-landuse + crop product. -N-content, FracDM	DS DIAS	0.0125	IPCC, 2000 - table 4.17
1.d Crop Residue	-landuse + crop product -N-content and FracDM in harvest crops and residue,	DS DIAS	0.0125	IPCC, 2000 - table 4.17
1.e Cultivation of histosols	-Cultivated organic soils	NERI	8 kg N_2O -N/ha	IPCC, 2000 - table 4.17
2. Animal production	N-excretion on grass NH_3 emission = 7%	NERI[1] DIAS	Solid = 0.001 liquid = 0.02	IPCC, 2000 - table 4.12
3. Indirect soil emissions				
3.a Atmospheric deposition	N-excretion, stable N-excretion, grass N in fertiliser NH_3 emission	NERI[1] - - DIAS	0.01	IPCC, 2000 – table 4.18
3.b Leaching and runoff	Amount of N leached	DIAS	0.025	IPCC, 2000 – table 4.18
4. Other				
Sewage sludge and industrial waste used as fertiliser	Amount of sewage sludge N-content	EPA	0.0125	IPCC, 1996 - table 4.18

[1] Data from the NH_3 estimation model (appendix 9.3)

FracGASM

The emission of NH_3 + NOx from husbandry manure are in IPCC 0.2 (IPCC, 1996 – table 4-19). However, considering the Danish situation the calculation of FracGASM is higher i.e. having an average of 0.28 in period 1990 – 2001 (figures 3). From figure 3, which is based on the NH_3 model, a decrease in the FracGASM in the period can be seen. In future inventories it is planned to apply a specific value for FracGASM for each year.

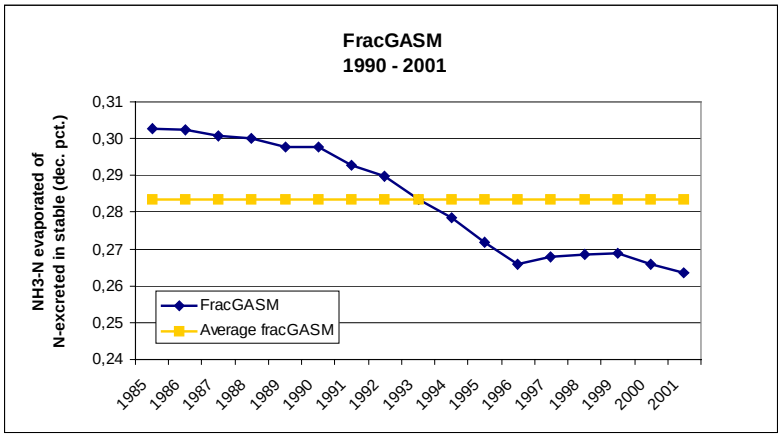

Figure 3. FracGASM estimated in the NH_3-model, 1990 – 2001

FracGASF

The emission of NH_3 + NOx from synthetic fertiliser are in IPCC given as 0.1 (IPCC, 1996 - table 4-19). The Danish value for the FracGASF is considerably lower i.e. 0.02. This is because urea constitute less than 1% of the total use of nitrogen in the fertiliser (table 9). The primary type of fertiliser is Calcium ammonium nitrate and NPK fertiliser that has an emission factor of 0.02. Data on the use of commercial manure is based on the sale estimations (The Danish Plant Directorate). Data for emissions factor are collected from Danish Institute of Agricultural Sciences (Sommer et al, 1992, 1994 and 1996).

Table 9. Synthetic fertiliser consumption 2001 and emissions factor.

Synthetic fertiliser year 2001	**Emissions factor[1]**	**Consumption[2]**
	kg NH_3 + NOx/kg N	**Mio. kg N**
Fertiliser type		
Calcium and boron calcium nitrate	0.02	0.4
Ammonium sulphate	0.05	2.6
Calcium ammonium nitrate and other nitrate types	0.02	100.2
Ammonium nitrate	0.02	20.5
Liquid ammonia	0.01	7.8
Urea	0.15	1.1
Other nitrogen fertiliser	0.05	10.3
NPK-fertiliser	0.02	82.7
Diammonphosphate	0.05	0.7
Other NP fertiliser types	0.02	2.2
NK fertiliser	0.02	5.3
FracGASF	0.02	233.7
Fraction of synthetic fertiliser N applied to soils that volatilizes as NH_3 and NOx		

[1] Danish Institute of Agricultural Sciences (Sommer et al., 1992, 1994 and 1996)
[2] The Danish Plant Directorate (www.plantedirektoratet.dk)

FracGRAZ

By estimation of NH_3 emission from grassing is used a emission factor of 0.07 which, is based on English and Dutch investigations of grassing cattle (Jarvis et al., 1989a, Jarvis et al., 1989b and Bussink, 1994). This emission factor is used for all animal categories. FracGRAZ is based on the NH_3 model and in table 10 the values for the period 1990-2001 are given. The variations are due to changes in the grassing period.

Table 10. FracGRAZ – fraction of total livestock N excretion that is applied during gassing (CRF, 2003)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
FracGRAZ	0.15	0.15	0.14	0.14	0.13	0.14	0.14	0.11	0.10	0.10	0.11	0.12

FracLEACH

In table 11 is shown FracLEACH for the period 1990-2001. In the period 1990-1998 FracLEACH decreases from 0.33-0.31. There have been recalculations of nitrogen leaching in connection with the evaluation of The Action Plan on the Aquatic Environment. Recent data shows that the nitrogen leaching might be higher than previous estimations. This recalculation will be included in the emission inventory for 2002.

Table 11. FracLEACH – fraction of N input to soils that is lost through leaching and runoff (CRF, 2003)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
FracLEACH	0.33	0.32	0.32	0.33	0.32	0.32	0.32	0.31	0.31	0.37	0.36	0.38

9.6 Uncertainties

Table 12 shows the estimated uncertainty for different emission sources which is based on expert judgement (Olesen et al., 2001). The uncertainties for activity data are relative small because they are based on National statistics and include measures based on a large number of data. For enteric fermentation the uncertainty for activity data is estimated to 2% (Statistic, Denmark). Uncertainties for manure management and agricultural soils are estimated to 10% and 20%, respectively. The uncertainties for agricultural soils is mainly related to estimation of nitrogen from crop residue, N-fixing crops and from N-leaching.

From enteric fermentation the uncertainty for the emission factor is estimated to 20% related to tier 2 method (IPCC, 2000). The emission factor for cattle is based on tier 2 method and this category contributes with 80% of the total emission from enteric fermentation. Uncertainty of the emission factor for manure management is estimated to 30% (Gyldenkærne, pers. comm., 2003). The emission factor depends among others on dry matter content in husbandry manure and the distribution of manure systems.

The emission factors for N_2O is based on IPCC default values. These values are connected with high uncertainties as a result of different soil types and climatic conditions. The default values does not necessary correspond the Danish conditions. The estimate of 95% confidence limit range is between 0.25% to 6% as given in IPCC Guidance (2000). The uncertainties for the emission factor of agricultural soils and manure management are estimated to 500% (Gyldenkærne, pers. comm., 2003).

In connection to the thorough investigation of the method for the emission inventory it is planned to perform a calculation of uncertainties. This will bee included in the emission inventory for 2002.

Table 12. The estimated uncertainty associated with activities and emission factor for CH_4 and N_2O

Emission	Source	Uncertainty[1]		Quantitative estimation of uncertainy[2]	
		Activity data	Emission factor	Activity data	Emission factor
CH_4	**4.A Enteric Fermentation**	*	*	2%	20%
	4.B(a) Manure Mangement	*	**	10%	30%
N_2O					
	4.B(b) Manure Mangement	*	***	10%	500%
	4.D Agricultural Soils			20%	500%
	1. Direct soil emissions				
	1a. Syntehetic Fertilizer	*	***		
	1.b Animal waste applied to soils	*	***		
	1.c N-fixing crops	**	***		
	1.d Crop Residue	***	***		
	1.e Cultivation of histosols	**	***		
	2. Animal production	*	***		
	3. Indirect soil emissions				
	3.a Atmospheric deposition	*	***		
	3.b Leaching and runoff	**	***		
	4. Other				
	Sewage sludge and industrial waste used as ferilizer	*	***		

[1] Olesen et al., 2001
[2] Gyldenkærne pers. comm., 2003
* uncertainty < 20%,
** uncertainty 20-50%
*** uncertainty > 50%

9.7 QA/QC

To ensure the data quality the trend of the emission for both activity data and the emissions factors is checked out. Further the implied emission factors for CH_4 and FracGASF, FracGRAZ, FracLEACH is compared for each year in the period 1990-2001. Considerable variations can reveal miscalculations or changes in methods.

The tier 2 assessment on livestock holdings and manure management is based on the Danish Ammonia Inventory System. This system is developed in corporation with and accepted by Danish Institute of Agricultural Science and the Danish Agricultural Advisory Centre and is therefor seen as a high standard. The in-house quality control is made by agronomist, Dr. PhD Steen Gyldenkærne.

Activity data and data for estimations of emission factors are collected and discussed in corporation with specialists and researcher at different institutes and research sections (table 2). It means that both the data and the methods will bee evaluated continuously according to the latest knowledge and information. At the moment there is no quality system review process. Presently it is planned to prepare a report, which in details describes the method of the emission inventory. This report will be circulate among research institutes and the environmental agency for consideration.

9.8 Recalculations

Years 1990-2001. CH_4-emissions from Enteric fermentation and manure management have been changed since horses on small farms and on riding schools have been included.

Since the emission inventory report 2001 there have been recalculations for CH_4-emissions from Enteric fermentation and manure management in the years 1990-2001. This is due to changes in number of horses since horses on small farms and on riding schools now are included. Previous inventory only includes horses stabling on farms bigger than five hectare as given in the Agricultural Statistics (Statistic Denmark). The number of horses is based on the stud book registration collected by The Danish Agricultural Advisory Centre. As a result of the recalculation the total emission of CH_4 is increased with 1-3 Gg CH_4 for each year in the period 1990-2001 (table 13).

Table 13. Changes in CH_4 emission in the agricultural sector compared to CRF reported dec. 2002.

CH_4 - CRF	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
						Gg CH_4						
CH_4 – reported dec. 2002	193.9	191.6	190.4	194.5	186.9	187.0	186.2	182.2	183.5	168.3	168.1	170.9
CH_4 – reported april 2003	194.7	193.5	192.4	196.7	189.1	189.2	188.5	184.2	185.6	170.4	170.3	173,0
Difference	0.8	1.9	2.0	2.2	2.2	2.2	2.3	2.0	2.1	2.1	2.2	2.1

9.9 Improvements

As mentioned a recalculation of activity data and emission factors for the period 1990-2001 will be performed in accounts to the latest knowledge. It is planned that these changes will be implemented in inventory emission for 2002.

A system is established to estimate the CH_4 emission similar to the NH_3 model. A system which include categorisation of animal categories and distribution of different stable systems and manure types (app. 9.3). The CH_4 emission will be estimated for each category based on tier 2 method. Data for estimation of emission factors are collected at NERI and Danish Institute of Agricultural Sciences.

The emission of CO_2 from agricultural soils and absorption are not included in previous inventory caused by lack of data. An investigation of changes in C-content in agricultural soil is planned in 2003. Result of this investigation will be implemented in the inventory as soon as the work is completed

Planned improvement for emission inventory 2002 in punctual form:

* development of a uniform emission calculates model for NH_3, N_2O, CH_4 and CO_2 from the agricultural sector.
* calculation of an annual emission factor for CH_4 from enteric fermentation and manure management
* include emission of CH_4 from goats
* include the reduction of emission from biogas production in the year 1990-2002
* calculation of an annual emission factor for evaporation of NH_3
* revision of N_2O emission from crop residue
* revision of N_2O emission from N-fixing crops
* revision of N_2O emission from N-leaching and runoff from manure
* investigate the possibilities to use National data for N_2O -emissions
* include CO2 emission from agricultural soils

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Table A.9.1
Denmark, tier 2 - Enteric Fermentation
Cattle

Based on feeding situation 1995	No. of heads prod. per year	Weigth kg	Weigth Gain kg per day	Feeding situation Stable %	Pasture %	Milk production kg per. day	Pregnant % of 100%	Digestibility of feed %	CH4-rate %	NE-m MJ/day	NE-feed (Nea) MJ/day	NE-g MJ/day	NE-l MJ/day	NE-p MJ/day	NE/DE -	NE-g/DE -	GE MJ/day	DK Tier 2 EF kg/year/head
Dairy cows	**702.473**	**550**	**0,0**	**90**	**10**	**19,10**	**90**	**71**	**6**	**38,05**	**0,65**	**0,00**	**58,62**	**2,57**	**0,531**	**0,337**	**264,70**	**104**
Other cattle																		
Bull-calves and steer-calves, under 1/2 year	190.042	135	1,0	100	0	0,00	0	79	6	12,75	0,00	9,97	0,00	0,00	0,548	0,365	64,06	25,21
Bull-calves and steer-calves, 1/2-1 year	152.210	324	1,1	100	0	0,00	0	75	6	24,59	0,00	17,03	0,00	0,00	0,541	0,352	125,15	49,25
Bulls and bullocks, 1-2 years	52.096	475	1,0	100	0	0,00	0	75	6	32,76	0,00	19,07	0,00	0,00	0,541	0,352	153,02	60,22
Bulls and bullocks, 2 years and over	8.870	575	0,0	100	0	0,00	0	75	6	37,81	0,00	0,00	0,00	0,00	0,541	0,352	93,22	36,69
Total male	*403.218*	*260*	*1,0*	*100*	*0*	*0,00*	*0*	*76*	*6*	*20,85*	*0,00*	*13,88*	*0,00*	*0,00*	*0,543*	*0,355*	*101,99*	*40,14*
Heifer-calves, under ½ year	215.475	94	0,6	100	0	0,00	0	78	6	9,72	0,00	5,00	0,00	0,00	0,547	0,362	40,53	15,95
Heifer-calves, ½-1 year	198.265	202	0,6	46	54	0,00	0	74	6	17,25	1,58	6,93	0,00	0,00	0,539	0,348	74,14	29,17
Heifers, 1-2 years	352.973	364	0,6	46	54	0,00	0	74	6	26,83	2,45	9,39	0,00	0,00	0,539	0,348	109,90	43,25
Heifers, 2 years and over	95.523	544	0,0	46	54	0,00	0	74	6	36,27	3,31	0,00	0,00	0,00	0,539	0,348	99,31	39,08
Total female	*862.236*	*279*	*0,5*	*60*	*40*	*0,00*	*0*	*74*	*6*	*21,99*	*1,51*	*7,18*	*0,00*	*0,00*	*0,539*	*0,350*	*86,24*	*33,94*
Cows kept for suckling	*122.446*	*550*	*0,0*	*39*	*61*	*0,00*	*90*	*67*	*6*	*36,57*	*3,81*	*0,00*	*0,00*	*2,47*	*0,520*	*0,319*	*122,93*	*48,38*
Total Other cattle	**1.387.900**	**298**	**0,6**	**70**	**30**	**0,00**	**0**	**74**	**6**	**23,07**	**1,19**	**8,83**	**0,00**	**0,00**	**0,538**	**0,347**	**95,97**	**37,77**

Table A.9.2
Denmark, tier 2 - Manure Management

Manure amount			Manure types						CH4 Convension factor (MCF)					CH4 parameters			DK Tier 2
Based on 1995 situation	Manure per. year ab animal per. year		Solid storage	Liquid	Slurry	Drylot	Pasture	Sum	Solid storage	Liquid	Slurry	Drylot	Pasture	CH4 - max prod (B_0)	CH4-specific gra	CH4-max	EF
Livestock Category		kg VS	pct.	pct.	pct.	pct.	pct.	pct.	pct	pct	pct	pct	pct	m3/kg VS	kg/m3	kg/kg VS	kg CH4/head/yr
Dairy cows		2 115	23	3	57	7	10	100	1	10	10	1	1	0,24	0,67	0,1608	21,84
Bull		479	3	0	22	74	0	100	1	10	10	1	1	0,17	0,67	0,1139	1,66
Heifer		591	2	0	15	38	45	100	1	10	10	1	1	0,17	0,67	0,1139	1,58
Suckling cattle		1 156	2	0	0	40	57	100	1	10	10	1	1	0,17	0,67	0,1139	1,35
Breeding ewe		400	0	0	0	31	69	100	1	10	10	1	1	0,17	0,67	0,1139	0,46
Goats		350	0	0	0	31	69	100	1	10	10	1	1	0,17	0,67	0,1139	0,40
Horses		967	0	0	0	50	50	100	1	10	10	1	1	0,17	0,67	0,1139	1,10
Sows		257	9	2	73	14	2	100	1	10	10	1	1	0,45	0,67	0,3015	5,96
Piglets		39	13	2	82	2	0	100	1	10	10	1	1	0,45	0,67	0,3015	1,02
Slaughter pigs		124	32	3	64	2	0	100	1	10	10	1	1	0,45	0,67	0,3015	2,63
Hens (100 stk.)		1 351	62	0	6	30	1	100	1	10	10	1	1	0,45	0,67	0,3015	6,42
Pullet (100 stk.)		447	0	0	47	53	0	100	1	10	10	1	1	0,45	0,67	0,3015	7,01
Broilers(100 pcs.)		781	0	0	0	100	0	100	1	10	10	1	1	0,45	0,67	0,3015	2,35
Tyrkey (100 pcs)		2 534	0	0	0	100	0	100	1	10	10	1	1	0,45	0,67	0,3015	7,64
Ducks (100 pcs.)		1 300	0	0	0	100	0	100	1	10	10	1	1	0,45	0,67	0,3015	3,92
Geese (100 pcs.)		1 429	0	0	0	0	100	100	1	10	10	1	1	0,45	0,67	0,3015	4,31

Table A.9.3

Data used to estimation of NH3 emission

Livestock	Stabletype	Stable type	Manure type	Days on graz	N-excretion			N-content in manure			Evaporation NH3-N	
						Stable	Graz	Stable		Graz		
Category		Allocation						Liquid + slurry	Solid storage + dry lot	Slurry	Stable	Graz
		dec.pct.		No.day	kg/head	tonnes N	tonnes N	tonnes N	tonnes N	tonnes N	tonnes NH3-N	
Horses á 400 kg	Deep litter (boxes)	1,000	Deep litter	183	38,00	1.698	1698	0	1.698	1.698	560	441
Horses á 600 kg	Deep litter (boxes)	1,000	Deep litter	183	50,00	1.439	1439	0	1.439	1.439	467	366
Horses á 800 kg	Deep litter (boxes)	1,000	Deep litter	183	63,00	143	143	0	143	143	46	36
Horses, total						**3.281**	**3.281**	**0**	**3.281**	3.281	**1.073**	**844**
Bull, 0 - 6 mo., large	Deep litter (boxes)	0,910	Deep litter	0	11,60	3.560	0	0	3.560	0	749	749
	Deep litter, solid floor	0,090	Deep litter	0	11,60	352	0	0	352	0	74	74
Bull, 0 - 6 mo., jersey	Deep litter (boxes)	0,910	Deep litter	0	8,80	97	0	0	97	0	21	21
	Deep litter, solid floor	0,090	Deep litter	0	8,80	10	0	0	10	0	2	2
Bull, 6 mo. - 440 kg., large	Tied-up with liquid and solid manure	0,090	Solid manure	0	8,30	262	0	0	262	0	78	78
		0,090 +	Black liquid	0	16,00	505	0	505	0	0	49	49
	Tied-up with slurry	0,090	Slurry	0	24,30	767	0	767	0	0	145	145
	Slatted floor-boxes	0,300	Slurry	0	24,30	2.556	0	2.556	0	0	571	571
												0
	Deep litter (all)	0,000	Deep litter	0	24,30	0	0	0	0	0	0	0
	Deep litter, solid floor	0,350	Deep litter	0	24,30	2.982	0	0	2.982	0	721	721
	Deep litter, slatted floor	0,110	Deep litter	0	14,58	562	0	0	562	0	153	153
		0,110 +	Slurry	0	9,72	375	0	375	0	0	84	84
	Deep litter, slatted floor, scrapes	0,020	Deep litter	0	14,58	102	0	0	102	0	28	28
		0,020 +	Slurry	0	9,72	68	0	68	0	0	14	14
	Deep litter, solid floor, scrapes	0,040	Deep litter	0	14,58	204	0	0	204	0	56	56
		0,040 +	Slurry	0	9,72	136	0	136	0	0	33	33
Bull, 0 - 6 mo.-328 kg, jersey	Tied-up with liquid and solid manure	0,090	Solid manure	0	6,20	11	0	0	11	0	3	3
		0,090 +	Black liquid	0	12,00	22	0	22	0	0	2	2
	Tied-up with slurry	0,090	Slurry	0	18,20	33	0	33	0	0	6	6
	Slatted floor-boxes	0,300	Slurry	0	18,20	111	0	111	0	0	25	25
								0	0	0		0
	Deep litter (all)	0,000	Deep litter	0	18,20	0	0	0	0	0	0	0
	Deep litter, solid floor	0,350	Deep litter	0	18,20	129	0	0	129	0	32	32
	Deep litter, slatted floor	0,110	Deep litter	0	10,92	24	0	0	24	0	6	6
		0,110 +	Slurry	0	7,28	16	0	16	0	0	4	4
	Deep litter, slatted floor, scrapes	0,020	Deep litter	0	10,92	4	0	0	4	0	1	1
		0,020 +	Slurry	0	7,28	3	0	3	0	0	1	1
	Deep litter, solid floor, scrapes	0,040	Deep litter	0	10,92	9	0	0	9	0	2	2
		0,040 +	Slurry	0	7,28	6	0	6	0	0	1	1
Heifer, o - 6 mo., large	Deep litter (boxes)	0,890	Deep litter	0	5,80	1.908	0	0	1.908	0	410	410
	Deep litter, solid floor	0,110	Deep litter	0	5,80	236	0	0	236	0	51	51
Heifer, 0 - 6 mo., jersey	Deep litter (boxes)	0,890	Deep litter	0	4,90	136	0	0	136	0	29	29
	Deep litter, solid floor	0,110	Deep litter	0	4,90	17	0	0	17	0	4	4
Heifer, 6 mo. - calving, large	Tied-up with liquid and solid manure	0,080	Solid manure	196	11,90	254	295	0	254	295	69	48
		0,080 +	Black liquid	196	18,90	404	468	404	0	468	99	67
	Tied-up with slurry	0,080	Slurry	196	30,80	658	763	658	0	763	175	121
	Slatted floor-boxes	0,260	Slurry	196	30,80	2.138	2480	2.138	0	2.480	651	478
	Loose-holding with beds, slatted floor	0,160	Slurry	196	30,80	1.316	1526	1.316	0	1.526	405	298
	Deep litter (all)	0,000	Deep litter	196	30,80	0	0	0	0	0	0	0
	Deep litter, solid floor	0,270	Deep litter	196	30,80	2.220	2575	0	2.220	2.575	659	479
	Deep litter, slatted floor	0,090	Deep litter	196	18,48	444	515	0	444	515	138	102
		0,090 +	Slurry	196	12,32	296	343	296	0	343	90	66
	Deep litter, slatted floor, scrapes	0,020	Deep litter	196	18,48	99	114	0	99	114	31	23

		0,020	+ Slurry	196	12,32	66	76	66	0	76	19	14
	Deep litter, solid floor, scrapes	0,040	Deep litter	196	18,48	197	229	0	197	229	61	45
		0,040	+ Slurry	196	12,32	132	153	132	0	153	42	32
Heifer, 6 mo. - calving, jersey	Tied-up with liquid and solid manure	0,080	Solid manure	196	8,30	13	16	0	13	16	4	3
		0,080	+ Black liquid	196	13,70	22	26	22	0	26	5	3
	Tied-up with slurry	0,080	Slurry	196	22,00	36	41	36	0	41	10	7
	Slatted floor-boxes	0,260	Slurry	196	22,00	116	134	116	0	134	35	26
	Loose-holding with beds, slatted floor	0,160	Slurry	196	22,00	71	82	71	0	82	22	16
	Deep litter (all)	0,000	Deep litter	196	22,00	0	0	0	0	0	0	0
	Deep litter, solid floor	0,270	Deep litter	196	22,00	120	139	0	120	139	37	27
	Deep litter, slatted floor	0,090	Deep litter	196	13,20	24	28	0	24	28	8	6
		0,090	+ Slurry	196	8,80	16	19	16	0	19	5	4
	Deep litter, slatted floor, scrapes	0,020	Deep litter	196	13,20	5	6	0	5	6	2	1
		0,020	+ Slurry	196	8,80	4	4	4	0	4	1	1
	Deep litter, solid floor, scrapes	0,040	Deep litter	196	13,20	11	12	0	11	12	4	3
Dairy cows, large	Tied-up with liquid and solid manure	0,150	Solid manure	55	62,60	4.368	771	0	4.368	771	770	716
		0,150	+ Black liquid	55	65,42	4.565	806	4.565	0	806	887	830
	Tied-up with slurry	0,250	Slurry	55	128,02	14.889	2627	14.889	0	2.627	2.916	2.732
	Loose-holding with beds, slatted floor	0,360	Slurry	55	128,02	21.440	3784	21.440	0	3.784	5.104	4.839
	Loose-holding with beds, slatted floor, scrapes	0,040	Slurry	55	128,02	2.382	420	2.382	0	420	527	497
	Loose-holding with beds, solid floor	0,090	Slurry	55	128,02	5.360	946	5.360	0	946	1.366	1.300
	Deep litter (all)	0,000	Deep litter	55	128,02	0	0	0	0	0	0	0
	Deep litter, slatted floor	0,070	Deep litter	55	76,81	2.501	441	0	2.501	441	594	563
		0,070	+ Slurry	55	51,21	1.668	294	1.668	0	294	393	373
	Deep litter, slatted floor, scrapes	0,010	Deep litter	55	76,81	357	63	0	357	63	85	80
		0,010	+ Slurry	55	51,21	238	42	238	0	42	52	49
	Deep litter, solid floor, scrapes	0,030	Deep litter	55	76,81	1.072	189	0	1.072	189	254	241
		0,030	+ Slurry	55	51,21	715	126	715	0	126	181	172
Dairy cows, jersey	Tied-up with liquid and solid manure	0,150	Solid manure	55	51,75	502	89	0	502	89	89	82
		0,150	+ Black liquid	55	54,05	524	92	524	0	92	102	95
	Tied-up with slurry	0,250	Slurry	55	105,80	1.710	302	1.710	0	302	335	314
	Loose-holding with beds, slatted floor	0,360	Slurry	55	105,80	2.462	434	2.462	0	434	586	556
	Loose-holding with beds, slatted floor, scrapes	0,040	Slurry	55	105,80	274	48	274	0	48	61	57
	Loose-holding with beds, solid floor	0,090	Slurry	55	105,80	616	109	616	0	109	157	149
	Deep litter (all)	0,000	Deep litter	55	105,80	0	0	0	0	0	0	0
	Deep litter, slatted floor	0,070	Deep litter	55	63,48	287	51	0	287	51	68	64
		0,070	+ Slurry	55	42,32	191	34	191	0	34	45	43
	Deep litter, slatted floor, scrapes	0,010	Deep litter	55	63,48	41	7	0	41	7	10	9
		0,010	+ Slurry	55	42,32	27	5	27	0	5	6	6
	Deep litter, solid floor, scrapes	0,030	Deep litter	55	63,48	123	22	0	123	22	29	28
		0,030	+ Slurry	55	42,32	82	14	82	0	14	21	20
Suckling cattle	Tied-up with liquid and solid manure	0,080	Solid manure	224	20,57	83	131	0	83	131	27	18
		0,080	+ Black liquid	224	36,50	147	233	147	0	233	38	22
	Deep litter (all)	0,440	Deep litter	224	57,06	1.261	2004	0	1.261	2.004	437	297
	Deep litter, solid floor	0,480	Deep litter	224	57,06	1.376	2186	0	1.376	2.186	477	323
Cattle, total						**93.134**	**26.324**	**67.168**	**25.966**	**26.324**	**21.541**	**19.699**
Breeding ewe	Deep litter (all)	1,000	Deep litter	265	16,95	**429**	**1.138**	**0**	**429**	**1.138**	**188**	**109**
Goats	Deep litter (all)	1,000	Deep litter	265	16,95	**49**	**129**	**0**	**49**	**129**	**21**	**12**
Sows	Full slatted floor	0,130	Slurry	0	26,39	3.846	0	3.846	0	0	1.281	1.281
	Partly slatted floor	0,550	Slurry	0	26,39	16.270	0	16.270	0	0	4.061	4.061
	Solid floor	0,060	Solid manure	0	6,37	428	0	0	428	0	247	247
		0,060	+ Black liquid	0	20,02	1.346	0	1.346	0	0	354	354
	Deep litter	0,100	Deep litter	0	26,39	2.958	0	0	2.958	0	909	909
	Deep litter + slatted floor	0,070	Deep litter	0	8,71	683	0	0	683	0	213	213
		0,070	+ Slurry	0	17,68	1.387	0	1.387	0	0	369	369
	Deep litter + solid floor	0,060	Deep litter	0	8,71	586	0	0	586	0	183	183

		0,060	+ Slurry	0	17,68	1.189	0	1.189	0	0	336	336
	Outdoor sows	0,030	Slurry	365	26,39	0	887	0	0	887	62	0
Piglets	Full slatted floor	0,360	Slurry	0	0,64	5.522	0	5.522	0	0	1.655	1.655
	Partly slatted floor	0,490	Slurry	0	0,64	7.516	0	7.516	0	0	1.884	1.884
	Solid floor	0,050	Solid manure	0	0,21	251	0	0	251	0	152	152
		0,050	+ Black liquid	0	0,43	516	0	516	0	0	173	173
	Deep litter (to-clima stables)	0,050	Deep litter	0	0,64	767	0	0	767	0	300	300
	Deep litter + slatted floor	0,050	Deep litter	0	0,32	383	0	0	383	0	150	150
		0,050	+ Slurry	0	0,32	383	0	383	0	0	96	96
Slaughter pigs	Full slatted floor	0,570	Slurry	0	3,12	41.208	0	41.208	0	0	12.348	12.348
	Partly slatted floor	0,330	Slurry	0	3,12	23.857	0	23.857	0	0	6.369	6.369
	Solid floor	0,040	Solid manure	0	1,01	938	0	0	938	0	542	542
		0,040	+ Black liquid	0	2,11	1.953	0	1.953	0	0	528	528
	Deep litter	0,010	Deep litter	0	3,12	723	0	0	723	0	250	250
	Partley slatted floor and partley deep litter	0,050	Deep litter	0	1,56	1.807	0	0	1.807	0	626	626
		0,050	+ Slurry	0	1,56	1.807	0	1.807	0	0	481	481
Swine, total						**116.326**	**887**	**106.800**	**9.526**	**887**	**33.570**	**33.508**
Outdoor hens (100 pcs.)		1,000	Deep litter	0	23,75	63	0	0	63	0	23	23
		1,000	+ Solid manure	0	47,49	127	0	0	127	0	59	59
		1,000	+ Solid manure	365	7,92	0	21	0	0	21	1	0
Ecological hens (100 pcs.)		1,000	Deep litter	0	25,95	114	0	0	114	0	42	42
		1,000	+ Solid manure	0	51,91	228	0	0	228	0	105	105
		1,000	+ Solid manure	365	8,65	0	38	0	0	38	3	0
Scrabe hens (100 pcs.)		1,000	Deep litter	0	28,00	141	0	0	141	0	51	51
		1,000	+ Solid manure	0	56,85	285	0	0	285	0	132	132
Battery hens, manure house (100 pcs.)		1,000	Solid manure	0	64,68	490	0	0	490	0	104	104
Battery hens, manure tank (100 pcs.)		1,000	Slurry	0	64,68	87	0	87	0	0	21	21
Battery hens, manure cellar (100 pcs.)		1,000	Solid manure	0	64,68	512	0	0	512	0	99	99
HPR-hens (egg for hatching) (100 pcs.)		1,000	Deep litter	0	60,79	653	0	0	653	0	238	238
		1,000	+ Solid manure	0	29,94	322	0	0	322	0	149	149
Pullet, consumption, net (100 pcs.)		1,000	Slurry	0	10,70	24	0	24	0	0	12	12
Pullet, consumption, floor (100 pcs.)		1,000	Deep litter	0	10,70	217	0	0	217	0	79	79
Pullet, egg for hatching (100 pcs.)		1,000	Deep litter	0	13,94	105	0	0	105	0	38	38
Broilers, conv. 40/37 days) (1000 pcs.)		1,000	Deep litter	0	53,34	7.558	0	0	7.558	0	2.596	2.596
Broilers, skrabe(81 days) (1000 pcs.)		1,000	Deep litter	0	63,36	9	0	0	9	0	3	3
Turkey, male (100 pcs.)		1,000	Deep litter	0	87,82	487	0	0	487	0	175	175
Turkey, female (100 pcs.)		1,000	Deep litter	0	48,11	267	0	0	267	0	96	96
Ducks (100 pcs.)		1,000	Deep litter	0	17,26	307	0	0	307	0	114	114
Geese (100 pcs.)		1,000	Deep litter	365	56,08	0	7	0	0	7	0	0
Poultry, total						**11.996**	**66**	**111**	**11.885**	**66**	**4.141**	**4.136**
Mink	Slurry system	0,500	Slurry	0	4,59	5.268	0	5.268	0	0	1.727	1.727
	Solid manure and black liquid	0,500	Solid manure	0	1,07	1.231	0	0	1.231	0	696	696
		0,500	+ Black liquid	0	3,52	4.037	0	4.037	0	0	1.413	1.413
Foxes	Slurry system	0,050	Slurry	0	11,48	5	0	5	0	0	2	2
	Solid manure and black liquid	0,950	Solid manure	0	2,68	23	0	0	23	0	13	13
		0,950	+ Black liquid	0	8,79	76	0	76	0	0	27	27
Fur farming, total						**10.641**	**0**	**9.387**	**1.254**	**0**	**3.878**	**3.878**
								0	0	0		
Animal manure, total						**235.856**	**31.825**	**183.467**	**52.389**	**31.825**	**64.413**	**62.185**

Appendix 10

The specific methodologies regarding Forestry

Appendix 10. The Specific methodologies regarding Forestry. CRF Tables 5 and 5A.

Removals by Sinks

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Revisions of methodology in relation to reporting of C sinks for LULUCF.

Since the submission to UNFCCC in April 2002 with emission data for the years 1990-2000, a new Forestry Census was published (Larsen and Johannsen, 2002). This has provided Denmark with much-needed updates of biomass stocks and estimates of annual increment. The former census was from 1990 (Statistics Denmark, 1994), and estimates of annual increment based on the forest area and site indices reported by forest owners in 1990 have been used in all NIRs so far. As a new issue carbon stocks and changes in these were included in the Forestry Census of 2000. In connection with calculation of carbon stocks in the new census, the methodology was slightly revised. This methodology will be used in the future and for forest sinks 1990-2000. The most significant revisions are the use of lower biomass expansion factors, but the use of tree species-specific wood densities has also improved the estimates of carbon stocks and carbon stock changes. These revisions would result in lower estimates of C stocks for the same increment data. However, recalculations of the forestry census data of 1990 with the same improved growth models as used in the new forestry census results in a higher standing stock of wood and thus also higher gross and net increments in the Danish forests for the period 1990-1999. The latest estimate of C sequestration in Danish forests planted before 1990 is therefore significantly higher than in previous reports to UNFCCC.

Forest sinks due to afforestation have also been recalculated based on new information in the Forestry Census of 2000 on the total afforestation area and the distribution to broadleaved and coniferous tree species. As a consequence of the new area information, the afforested area per year has been reduced by around 500 ha, and the cumulated CO2 sequestration 1990-2001 is therefore reduced by 28%.

Forest inventory data and reference values used in calculations

The standing stock of wood in 1990 and annual increments for the period 1990-99 as reported in Forestry Census of 1990 were recalculated and the data are presented in the Danish Forestry Census of 2000. Therefore, standing stocks of wood in 1990 and 2000, and annual increments for the periods 1990-99 and 2000-2001 are all obtained from the Forestry Census of 2000 (Larsen and Johannsen, 2002).

The Forestry Census has been carried out roughly every 10 years and is based on questionnaires to forest owners. Detailed information about the census and the methodology can be found in Larsen and Johannsen (2002), and further documentation is available from Danish Forest and Landscape Research Institute[1]. From 2002, a new sample-based National Forest Inventory has been launched which will replace the Forestry Census. The National Forest Inventory will be complete by 2006 but preliminary results may be obtained from 2003. This type of forest inventory will be quite similar to inventories used in other countries, e.g. Sweden.

In 1990, the forested area was 411000 ha (= 4110 km^2) or approximately 10% of the land area. The forest area is defined as closed canopy high forest. This means that open woodland and open areas within the forest are not included. Broadleaved tree species made up 35% and coniferous species

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made up 65% of the forest area. In order to enable comparison with the Forestry Census of 2000, standing stocks of wood in 1990 were recalculated in the new Forestry Census using the same growth models and site indices (Larsen and Johannsen, 2002). The recalculated standing stock of wood was 64.8 mill. m^3 (as opposed to the original estimate of 55.2 mill. m^3) equivalent to 15.77 m^3 per km^2, distributed on 40% broadleaved species and 60% coniferous species. This stock of wood was equivalent to 22425 Gg C or 82225 Gg CO_2.

In 2000, the forested area was 468000 ha or approximately 11% of the land area. The increase in forested area is partly a result of afforestation of former arable land (about 27536 ha) and partly a result of a higher number of respondents in the most recent census. Broadleaved tree species made up 37% and coniferous species made up 63% of the forest area. The standing stock of wood was 77.9 mill. m^3 equivalent to 16.65 m^3 per km^2, distributed on 37% broadleaved species and 63% coniferous species. This stock of wood was equivalent to 26803 Gg C or 98278 Gg CO_2.

There is no information on applicable expansion factors for Danish conditions. Expansion factors are needed to convert stem volumes for conifers and total aboveground biomass for the broadleaves to total biomass. Therefore, stemwood volumes for conifers are converted to total biomass by an expansion factor of 1.8 based on Schöne and Schulte (1999), and aboveground biomass for broadleaves are converted to total biomass by an expansion factor of 1.2 based on Vande Walle et al. (2001) and Nihlgård and Lindgren (1977). The difference between expansion factors is mainly due to the difference in biomass data for the species categories. The total biomass in m^3 is converted to dry mass by use of tree species-specific wood densities (Moltesen, 1988, see Table 1), and carbon content is lastly calculated by using a carbon concentration of 0.5 g C g^{-1} dry mass.

Table 1. *Wood densities for Danish tree species (Moltesen, 1988).*

	Wood denisty (t dry matter/ m^3 fresh volume)
Norway spruce	0.38
Sitka spruce	0.37
Silver fir	0.38
Douglas-fir	0.41
Scots pine	0.43
Mountain pine	0.48
Lodgepole pine	0.37
Larch	0.45
Beech	0.56
Oak	0.57
Ash	0.56
Maple	0.49

The Danish expansion factors and the wood densities result in estimates of C stores that are 46% lower for broadleaves and 20% lower for conifers than when using the IPCC default expansion factor of 1.9 and the volume to dry weight rations of 0.45 for conifers and 0.65 for broadleaves. The large difference for broadleaves is due to the fact that the reported biomass for broadleaves in the Danish Forestry Census is total aboveground biomass.

The Danish reporting on changes in forest carbon stores only considered the biomass of trees. There is no available systematic information on soil organic carbon for the reporting.

Annual CO_2-sequestration in forests planted before 1990.

Net C sequestration in the periods 1990–1999 and 2000-2001 was the result of a net increase in standing stock of the existing forests. Net C sequestration in existing forests is the result of a relatively low harvest intensity, especially for conifers, but it is also partly a result of an uneven age class distribution with relatively many young stands. The estimated wood increment for the period 2000–2001 has now been updated with the most recent questionnaire-based Forestry Census of

2000. The net C sequestration is based on estimates of annual increment as reported by forest owners and on 10-year mean values of harvested amounts of wood (1990-1999). Commercial harvesting were used in calculations for broadleaved species as wood from thinning operations in young stands is sold as fuel wood and therefore appears in the statistics. For conifers, non-commercial thinning operations are more common. In order to account for this, 20% were added to the figures for commercial harvests of coniferous wood.

The annual net increment (wood increment minus harvested wood) was around 2.3 mill. m^3 y^{-1} for 1990–1999 and is estimated at around 2.7 mill. m^3 y^{-1} for 2000-2001. Wood volumes are converted to carbon stores by the same method as mentioned above for carbon stocks. The resulting net sink for CO_2 in forests existing in 1990 was 3118 Gg CO_2 y^{-1} for the period 1990-1999 and 3458 Gg CO_2 y^{-1} for the period 2000-2001 (Larsen and Johannsen, 2002). In previous reports to UNFCCC, the net sink for CO_2 in forests existing in 1990 was reported as 916 Gg CO_2 y^{-1} for the period 1990-1999. The higher sink for CO_2 for the period 1990-99 is due to recalculated stocks of wood. For 2000-2001, the sink for CO_2 was slightly higher. This is mainly attributed to the higher number of respondents to the questionnaire i.e. the included forest area was larger. Annual increment per ha. was quite similar for the two periods.

Annual CO_2 sequestration by afforestation of former arable land

In 1989 the Danish Government decided to encourage a doubling of the forested area within a tree generation of approximately 80–100 years (Danish Forest and Nature Agency 2000). In order to reach this target, an afforestation rate of roughly 4–5000 ha y^{-1} is needed, but the afforestation rate has been much lower than needed with an average afforestation rate of 1829 ha yr^{-1} for the period 1990-2001. Afforestation is carried out on soils formerly used for agriculture (cropland). The afforestation area is specified in Table 2. Data on the area afforested by state forest districts, other public forest owners and private land owners receiving subsidies is based on an evaluation report on afforestation (Danish Forest and Nature Agency, 2000). The area afforested by private land owners without subsidies is estimated by subtracting the afforestation categories mentioned above from the total area afforested per year in the period 1990-99 as recorded in the latest Forestry Census (Larsen and Johannsen, 2002). The Forestry Census included Nordmann's fir plantations for Christmas trees and greenery on arable land as afforestation. These stands made up 40% of the total area afforested 1990-99. The Nordmann's fir plantations were not included in the afforested area used in the Danish LULUCF reporting. Firstly, they never become closed forest as the trees are harvested within a ten year rotation, and secondly changes in the market for Christmas trees may force land owners to revert the land use to agriculture after a few years.

Table 2. *Distribution of afforestation area (ha) on different landowners and tree species. Plantations of Nordmann's fir for Christmas trees and greenery are not included in the afforested area.*

Year	State forests	Other publicly owned forests	Private forests with subsidies	Private without subsidies	Total area	Broadleaved	Coniferous
1990	107	12	0	611	730	320	410
1991	300	12	70	611	993	527	466
1992	562	12	70	611	1255	721	534
1993	450	149	70	611	1280	738	542
1994	553	149	178	611	1491	912	579
1995	396	141	178	611	1326	790	536
1996	407	146	212	611	1376	833	543
1997	414	267	968	611	2260	1614	646
1998	146	101	547	611	1405	912	493
1999	278	150	3304	611	4343	3554	789
2000	126	150	1800	611	2687	2073	614
2001	133	158	1899	611	2801	2174	627

The approximate distribution of broadleaved and coniferous tree species is obtained from the Forestry Census of 2000 (Larsen and Johannsen, 2002) for all ownership categories except private landowners receiving subsidies. The tree species distribution for the latter category was obtained from the evaluation report on afforestation (Danish Forest and Nature Agency, 2000).

Full carbon accounting is used in a manner by which C-stock changes are based on area multiplied by uptake. Uptake is calculated using a simple carbon storage model based on the Danish yield tables for Norway spruce (representing conifers) and oak (representing broadleaves) (Møller 1933). The amounts of carbon sequestered in annual cohorts of afforested areas are summed up in the model to give the total carbon storage in a specific year.

Wood volumes are converted to carbon stores by the same method as mentioned for carbon stocks in 1990 except that a higher expansion factor of 2 is used for both species categories. This is done to recognize the age-dependency of expansion factors, as the stem represents a much lower proportion of the total biomass for age classes 1-10. However, studies in other countries indicate that an expansion factor of 2 clearly underestimates the total biomass for age classes 1-10 (Schöne and Schulte, 1999). As there are no Danish expansion functions including age, it was chosen to use an expansion factor of 2 as a conservative estimate so far. Here is clearly an area of improvement.

Decomposition rates for the various slash components are included in the model. Carbon storage in wood products may be included in the accounting by use of a module with turnover rates for the various wood products. This option was not included in the calculations of the figures presented here. For more information see Danish Energy Agency (2000).

The following carbon pools were included for afforestation stands: whole tree biomass (including roots), and slash. Based on studies of soils in a chronosequence of afforested stands, no significant changes in soil organic matter was expected to take place during the first 30 years following afforestation (Vesterdal et al., 2002). However, there is no systematic data to explore this further. The yield tables used for calculation of carbon stores are valid for yield class 2 (on a scale decreasing from 1 to 4). There is made no distinction between growth rates on different soil types.

During the Kyoto commitment period 2008–2012 (5 years), it is estimated that the Danish afforestation activities will result in sequestration of 384 Gg C equivalent to 1408 Gg CO_2 . This amount of C results from the afforestation of 49100 ha of former arable land over the period 1990–2012. The sink capacity is based on a conservative estimate of around 2500 ha of land afforested annually 2002-2012, but it is possible that other instruments in addition to subsidisation will make it possible to increase the rate of afforestation and eventually the sequestration of CO_2.

In Table 3 is given the figures that is reported in this NIR. Table 3 also gives the comparatively small amounts of CO_2 sequestered due to afforestation since 1990. As shown in the table, annual sequestration of CO_2 in forests established since 1990 has gradually increased to 73 Gg CO_2 in 2001, for further details see the Annex. The annual CO_2 sequestration will increase much more over the next decades when cohorts of afforestation areas enter the stage of maximum current increment.

Table 3. *CO_2 stores and uptake in forests in Gg, 1990 – 2001. Uptake due to changes in forest biomass stocks in forests planted before 1990 and due to afforestation of former arable land since 1990.*

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
CO_2 store in all forests	82.225										98.278	
Total CO_2 uptake in forests	-3118	-3119	-3121	-3123	-3126	-3128	-3134	-3142	-3152	-3161	-3517	-3531
CO_2 uptake due to net increment in forests existing before 1990	-3118	-3118	-3118	-3118	-3118	-3118	-3118	-3118	-3118	-3118	-3458	-3458
CO_2 uptake due to afforestation since 1990	0	-1	-3	-5	-8	-10	-16	-24	-34	-43	-59	-73

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ANNEX

Methods of the calculation of the amounts of CO_2 sequestered due to afforestation since 1990.

CO2-sinks due to national afforestation programme

		Afforestation area, ha				Total CO2 uptake		CO2 uptake per cumulated area		
Planting year	Years after establish-ment	Broad-leaves	Conifers	Total	Cumu-lated area since 1990	Annual Gg/yr	Cumu-lated Gg	Annual CO2 uptake, t/ha	Annual C uptake, t/ha	Running average CO2 uptake since 1990 Gg/ha
1990	0	320	410	730	730	0	0	0,0	0,00	0,00
1991	1	527	466	993	1723	1	1	0,7	0,20	0,73
1992	2	721	534	1255	2978	3	4	1,0	0,28	0,72
1993	3	738	542	1280	4258	5	10	1,2	0,34	0,75
1994	4	912	579	1491	5749	8	17	1,3	0,36	0,75
1995	5	790	536	1326	7075	10	28	1,5	0,40	0,78
1996	6	833	543	1376	8451	16	44	1,9	0,53	0,87
1997	7	1614	646	2260	10711	24	68	2,2	0,61	0,90
1998	8	912	493	1405	12116	34	102	2,8	0,77	1,05
1999	9	3554	789	4343	16459	43	145	2,6	0,71	0,98
2000	10	2073	614	2687	19146	59	204	3,1	0,84	1,06
2001	11	2174	627	2801	21947	73	277	3,3	0,91	1,15

Carbon increment models based on oak and spruce, yield class 2

Based on yield tables in Møller (1933)

		Broadleaves, oak yield class 2				Conifers, Norway spruce yield class 2				
		With products		Without products		With products		Without products		
Year	Age	Increment t CO2/ha/yr	Storage t CO2/ha	Increment t CO2/ha/yr	Storage t CO2/ha	Increment t CO2/ha/yr	Storage t CO2/ha	Increment t CO2/ha/yr	Storage t CO2/ha	Stored wood for bioenergy t CO2/ha
1990	0	0	0	0	0	0	0	0	0	
1991	1	2	2	2	2	1	1	1	1	0
1992	2	2	4	2	4	1	3	1	3	0
1993	3	2	6	2	6	1	4	1	4	0
1994	4	2	9	2	9	1	6	1	6	0
1995	5	2	11	2	11	1	7	1	7	0
1996	6	6	17	6	17	7	14	7	14	0
1997	7	6	24	6	24	7	21	7	21	0
1998	8	6	30	6	30	7	28	7	28	0
1999	9	6	36	6	36	7	35	7	35	0
2000	10	6	43	6	43	7	41	7	41	0
2001	11	9	51	9	51	12	54	12	54	0

Summation table for cohorts of areas afforested with broadleaves (t CO2)

Year	Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	Area	320	527	721	738	912	790	833	1614	912	3554	2073	2174
Year	Age												
1990	0	0											
1991	1	685	0										
1992	2	685	1128	0									
1993	3	685	1128	1543	0								
1994	4	685	1128	1543	1579	0							
1995	5	685	1128	1543	1579	1952	0						
1996	6	2054	1128	1543	1579	1952	1691	0					
1997	7	2054	3383	1543	1579	1952	1691	1783	0				
1998	8	2054	3383	4629	1579	1952	1691	1783	3454	0			
1999	9	2054	3383	4629	4738	1952	1691	1783	3454	1952	0		
2000	10	2054	3383	4629	4738	5855	1691	1783	3454	1952	7606	0	
2001	11	2739	3383	4629	4738	5855	5072	1783	3454	1952	7606	4436	0

Summation table for cohorts of areas afforested with conifers (t CO2)

Year	Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	Area (ha)	410	466	534	542	579	536	543	646	493	789	614	627
Year	Age (yr)												
1990	0	0											
1991	1	566	0										
1992	2	566	643	0									
1993	3	566	643	737	0								
1994	4	566	643	737	748	0							
1995	5	566	643	737	748	799	0						
1996	6	2829	643	737	748	799	740	0					
1997	7	2829	3215	737	748	799	740	749	0				
1998	8	2829	3215	3685	748	799	740	749	891	0			
1999	9	2829	3215	3685	3740	799	740	749	891	680	0		
2000	10	2829	3215	3685	3740	3995	740	749	891	680	1089	0	
2001	11	5092	3215	3685	3740	3995	3698	749	891	680	1089	847	0

Appendix 11

The specific methodologies regarding Waste

Appendix 11. Specific methodologies regarding waste. CRF Table 6, Table 6A and Table 6B.

The methodology is a IPCC Tier 2 approach and the model is described in Danish Energy Agency (2001), which is also the reference for the data etc in Tables 1 and 2 below.

The composition of waste (Table 1) has considerable variation. For consistency the composition shown has been kept for all years (1990-2001) reported.

Table 1. Composition of landfilled waste

Materiale fractions in	Waste food	Card-board	Paper	Wet Card-board and paper	Plastics	Other Combu-stible	Glass	Metal	Other not Combu-stible	Sum
Domestic Waste	0,38	0,02	0,13	0,26	0,07	0,03	0,02	0,05	0,05	1,00
Bulky Waste		0,08	0,23		0,05	0,46	0,09	0,09	0,02	1,00
garden Waste						0,76			0,24	1,00
Commercial & office Waste	0,25	0,31	0,04	0,11	0,05	0,10	0,05	0,05	0,05	1,00
Industrial Waste	0,06	0,02	0,07	0,01	0,01	0,06	0,04	0,18	0,54	1,00
Building & constr. Waste						0,07			0,93	1,00
Sludge						0,29			0,71	1,00
Ash & slag									1,00	1,00

In Table 2 the resulting CH_4 emissionfactors for the various waste types are shown. The emissionfactors are based on the assumptions that 50% of the carbon in the landfill is emitted as a gas containing 45% of CH_4.

Table 2. CH4 emisssionfactors from waste in landfills

	Domestic Waste	Bulky Waste	Garden Waste	Com-mercial & office Waste	Industrial Waste	Building & cons-truction Waste	Sludge	Ash & slag
Carbon content in %	20	40	25	40	35	40	57	0
Emission factor in kg CH4 / ton	54,0	108,0	67,5	108,0	94,5	108,0	153,9	0,0

In the first part of Table 3 below is given the data for the amounts of waste from the official registration of amounts of Municipal Solid Waste deposited at Solid Waste Disposal Sites as performed by Danish Environmental Protection Agency. These data for the amounts of waste is used to calculate a potential emission (Table 3) using only emissionfactors and the amounts of waste for the actual year. Using however, the IPCC Tier 2 method the emissions from waste landfilled the years before are taken into account. A further assumption here is that the half-life of the Carbon in the waste is 10 years, which means that half of Carbon in waste deposited in 10 years time will be converted to CH_4. The result of the calculation of the model is in the column Annual emission of Table 3. The annual emission has to be subtracted the amount of CH_4 collected by the landfill gas plants to result in The Annual net emission. The data for landfill gas plants are according to the Danish Energy Agency.

The total waste amount in Table 3 as the sum of the different waste types corresponce to the activity data as the Annual Municipal Solid Waste at Solid Waste Disposal Sites of the CRF table 6.A. Unfortunately, this activity data for year 1998 has not been updated according to the model and the latest data for waste for that year. The error influences also the emission, which for 1998 is reported to 55.4 Gg of CH_4, but should according to the model have been 58.1. Also for 1999 there is an minor error in the CRF; according to the model the emission should have been 58.2 but 52.8 is reported. These deviations will looked after and there will be an correction and an update performed for the next reporting.

The implied emission factor in the CRF Tabels reflects an aggregated emission factor for the model. So far this IEF has been increasing from 1990 to 2001 despite the decreasing amount of waste since 1995. This is due to the time lag of emissions from the waste deposited calculated by the model.

Table 3. Amounts of Waste in landfills and their CH4 emisssions.

Year	Dome-stic Waste	Bulky Waste	Garden Waste	Com-mercial & office Waste	Indu-strial Waste	Building & cons-truction Waste	Sludge	Ash & slag	Waste Total	Potential emission	Annual emission	Biogas collected	Annual net emission
	kt								kt	kt CH4	kt CH4	kt CH4	kt CH4
1990	198,9	250,7	85,2	109,3	822,4	951,4	222,1	535,0	3175,1	85,2	64,0	1,7	62,4
1991	198,7	259,0	70,7	120,0	824,3	804,3	193,3	562,0	3032,3	83,7	65,3	1,7	63,7
1992	198,4	267,3	56,1	130,7	826,2	657,2	164,6	589,0	2889,6	82,2	66,5	1,7	64,8
1993	198,2	275,7	41,6	141,3	828,1	510,1	135,8	616,0	2746,8	80,7	67,4	2,8	64,7
1994	198,0	284,0	27,0	152,0	830,0	363,0	107,0	643,0	2604,0	79,2	68,2	2,8	65,5
1995	190,0	286,0	17,0	128,0	779,0	321,0	101,0	135,0	1957,0	74,7	68,7	6,0	62,7
1996	132,0	275,0	6,0	135,0	822,0	317,0	117,0	703,0	2507,0	71,4	68,8	6,6	62,2
1997	83,0	248,0	6,0	170,0	707,0	264,0	130,0	475,0	2083,0	65,9	68,6	9,4	59,2
1998	98,0	234,0	20,0	161,0	746,0	266,0	124,0	210,0	1859,0	66,3	68,5	10,4	58,1
1999	117,0	239,0	3,0	164,0	582,0	224,0	126,0	12,0	1467,0	63,5	68,2	9,9	58,2
2000	85,0	264,0	7,0	152,0	611,0	269,0	94,0	0,0	1482,0	62,5	67,8	10,7	57,0
2001	50,0	180,0	3,0	150,0	583,0	260,0	64,0	10,0	1300,0	49,9	66,6	11,0	55,6

Appendix 12

Key source analysis for year 2001

Appendix 12.

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Key source analysis for year 2001.

A key source analysis according to the Good Practice Guidance, Penman et al (2000), has been carried out. The base year in the analysis is year 1990 for the greenhouse gases CO_2, CH_4, N_2O and 1995 for the greenhouse F-gases HFC, PFC and SF_6. The base year is unadjusted to electricity trade. The analysis was made for the inventory for the year 2001.

This key source analysis follows the same approach as in the NIR2002. The approach is a Tier 1 quantitative analysis. As suggested in the Good Practice Guidance the analysis is carried out without considering LULUCF. The starting point for the choice of source categories is the one presented in the Good Practice Guidance as Table 7.1. However, as long as categories in this Table in our Corinair database are composed of activities with different emission factors, splits were made accordingly. Especially in the Energy Sector further splits are made as compared to the Table 7.1 in the Good Practice Guidance. Our choice of categories for the analysis identifies 59 source categories, which are listed in Table 3.

The level assessment of the key source analysis is a ranking of the source categories in accordance to their contributions to the National total of greenhouse gases calculated in CO_2-equivalent units. The key sources are found from the ranked list with descending contributions as source categories which sum constitutes 95% of the National total. The results of this analysis for Denmark for year 2001 are shown in Table 1. A number of 20 key sources (same number as for year 2000) were identified and marked as shaded in the Table. The entries to Table 1 and 2 for the year 1990 and 2001 are composed from the databases producing the CRF inventory for those years in this report. Note that base year estimates are not used in the level assessment analysis, but are only included in Table 1 to make it uniform with Table 2.

The trend assessment of the key source analysis is a ranking of the source categories according to their contribution to the trend of the national total of greenhouse gases calculated in CO2-equivalent units from the base year to the year considered. The trend of the source category is calculated relative to the trend of the National totals and the trend is weighted with the contribution according to the level assessment. The ranking is performed in descending order on this trend. As for the level assessment the cut of line is 95% for the sum of contribution to the trend. The result of the trend assessment for Denmark for year 2001 is shown in Table 2. A number of 17 key sources (16 for year 2000) were identified and marked as shaded in the Table. Note that according to the Good Practice Guidance the analysis imply that contributions to the trend are all calculated positive to be able to do the ranking.

Following the reporting suggestion of the Good Practice Guidance the analyses is summarised in Table 3. In this Table all categories used in the analysis are listed and the results of the key source analyses are given. It is seen that of the 59 source categories chosen for this analysis, 23 (22 for year 2000) are identified as key source categories of which 14 (same number as for 2000) are identified due to both level and trend, 6 due to level only (as for 2000) and 3 (2 for 2000) due to trend only.

The Energy Sector and CO_2 emission from stationary Combustion contributes to 7 (5 for year 2000) key source categories with respect to level and trend. These 7 key sources are the major fuels Steam Coal, Residual Oil, Gas Oil, Orimulsion and Natural Gas as for year 2000 and for 2001 only Nonbiogenic waste and Petroleum coke. As for the trend in emission estimates comparing year 1990 and 2001, Steam Coal, Residual Oil and Gas Oil are seen to reduce emissions while Orimulsion, Nonbiogenic waste and Petroleum coke and especially Natural Gas increase. Steam Coal is according to the key source level assessment as for year 2000 the most contributing category with 24.0% of the National total (Table 1) (23.0% in 2000). Natural gas is as in year 2000 the third largest contributor with 16.0%. Gas Oil is fifth largest contributor with a level of 4.4%

in 2001. The rest of the categories mentioned above as level and trend key sources contributes each below 4% of the National total in 2001.

The Energy Sector and the category CO_2 emissions from Mobile Combustion, Road Transportation is identified as key source for level and trend with increased emission estimates from year 1990 to 2001. This category is unchanged since year 2000 the second largest contributor with a level contribution of 16.2% in 2001.

The Energy Sector contributes further to a key source for level and trend for the category Fugitive CO_2 emissions from Oil and Natural Gas with increasing emissions from year 1990 to 2001; its contribution of 0.9% to the national total in 2001 is the lowest among the level and trend key sources.

In the Agriculture Sector, 3 sources are keys with respect both to level and trend as they were in the analysis for the year 2000. These key categories are direct N_2O emissions from Agriculture Soils, indirect N_2O emissions from Nitrogen used in Agriculture and CH_4 from Enteric Fermentation. The emission estimates for these 3 sources represent a reduced emission from year 1990 to 2001. According to level assessment these sources are among the 7 most contributing, with direct N_2O emissions from Agriculture Soils contributing 6.5%, indirect N_2O emissions from Nitrogen used in Agriculture contributing 4.3% and CH_4 from Enteric Fermentation 4.0%.

In the Industrial Sector, 2 sources are as they were in year 2000 keys with respect both to level and trend; they are CO_2 emissions from Cement Production and Emission from substitutes for Ozone Depleting Substances (HFCs and PFCs). The trends from year 1990 to 2001 for these sources are increased emissions. As regards the level assessment Cement Production contributes 2.0% and substitutes for Ozone Depleting Substances (HFCs and PFCs) 1%.

Table 1.

Table 7.A1 (of Good Practice Guidance) Tier 1 Analysis - Level Assessment (DK-inventory)							
A IPCC Source Categories (LULUCF not included)			B Direct Greenh. Gas	C Base Year Estimate (1) Mt CO2-eq	D Year 2001 Estimate Mt CO2-eq	E Year 2001 Level Assess-ment	F Year 2001 Cumul. total of Col. E
Energy	CO2 Emission from stationary Combustion	Steam coal	CO2	24,209	16,668	0,240	0,24
Energy	Mobile combustion	Road Transportation	CO2	9,351	11,273	0,162	0,40
Energy	CO2 Emission from stationary Combustion	Natural gas	CO2	4,330	11,075	0,160	0,56
Agriculture	Direct N2O emissions from Agriculture soils		N2O	6,210	4,490	0,065	0,63
Energy	CO2 Emission from stationary Combustion	Gas oil	CO2	4,858	3,063	0,044	0,67
Agriculture	Indirect N2O emissions from Nitrogen used in agriculture		N2O	3,588	2,987	0,043	0,71
Agriculture	Enteric fermentation		CH4	3,189	2,747	0,040	0,75
Energy	CO2 Emission from stationary Combustion	Orimulsion	CO2	0,000	2,419	0,035	0,79
Energy	CO2 Emission from stationary Combustion	Residual oil	CO2	2,505	1,567	0,023	0,81
Industrial Processes	CO2 emissions from Cement production		CO2	0,883	1,361	0,020	0,83
Energy	Mobile combustion	agriculture	CO2	1,082	1,292	0,019	0,85
Waste	Emission from Solid Waste Disposal sites		CH4	1,310	1,168	0,017	0,87
Agriculture	Manure management		CH4	0,900	0,884	0,013	0,88
Energy	Mobile combustion	other mobil and machinery	CO2	0,737	0,880	0,013	0,89
Energy	CO2 Emission from stationary Combustion	Refinery gas	CO2	0,806	0,813	0,012	0,90
Energy	CO2 Emission from stationary Combustion	Petroleum coke	CO2	0,455	0,742	0,011	0,91
Industrial Processes	Emission from substitutes for ODS		HFC+PFC	0,237	0,669	0,010	0,92
Energy	Mobile combustion	national fishing	CO2	0,799	0,661	0,010	0,93
Energy	CO2 Emission from stationary Combustion	Nonbiogenic plast waste	CO2	0,400	0,634	0,009	0,94
Energy	Fugitive emissions	Oil and Natural Gas	CO2	0,240	0,633	0,009	0,95
Energy	Non-CO2 Emission from stationary Combustion		CH4	0,115	0,580	0,008	0,96
Agriculture	N2O from Manure management		N2O	0,462	0,442	0,006	0,97
Energy	Mobile combustion	Navigation	CO2	0,539	0,424	0,006	0,97
Energy	Non-CO2 Emission from stationary Combustion		N2O	0,396	0,391	0,006	0,98
Energy	Mobile combustion	Road Transportation	N2O	0,131	0,381	0,005	0,98
Energy	Mobile combustion	Railways	CO2	0,298	0,212	0,003	0,99
Energy	Mobile combustion	Civil Aviation	CO2	0,216	0,168	0,002	0,99
Solvent and Other Product Use			CO2	0,124	0,112	0,002	0,99
Industrial Processes	CO2 emissions from Lime production		CO2	0,123	0,104	0,001	0,99
Energy	Mobile combustion	Military	CO2	0,119	0,097	0,001	0,99
Energy	Mobile combustion	household and gardening	CO2	0,071	0,085	0,001	0,99
Energy	Fugitive emissions	Oil and Natural Gas	CH4	0,021	0,078	0,001	1,00
Energy	Fugitive emissions	Solid Fuels	CH4	0,072	0,069	0,001	1,00
Energy	Mobile combustion	Road Transportation	CH4	0,055	0,068	0,001	1,00
Energy	CO2 Emission from stationary Combustion	LPG	CO2	0,148	0,050	0,001	1,00
Energy	CO2 Emission from stationary Combustion	Kerosene	CO2	0,366	0,021	<0,001	1,00
Industrial Processes	SF6 from other sources of SF6		SF6	0,068	0,018	<0,001	1,00
Energy	Mobile combustion	agriculture	N2O	0,014	0,017	<0,001	1,00
Energy	Mobile combustion	national fishing	N2O	0,016	0,013	<0,001	1,00
Industrial Processes	SF6 from electrical equipment		SF6	0,004	0,013	<0,001	1,00
Energy	Mobile combustion	other mobil and machinery	N2O	0,008	0,012	<0,001	1,00
Energy	Mobile combustion	Navigation	N2O	0,010	0,007	<0,001	1,00
Energy	Mobile combustion	forestry	CO2	0,004	0,005	<0,001	1,00
Energy	Mobile combustion	other mobil and machinery	CH4	0,004	0,004	<0,001	1,00
Energy	Fugitive emissions	Oil and Natural Gas	N2O	0,001	0,003	<0,001	1,00
Energy	Mobile combustion	household and gardening	CH4	0,002	0,003	<0,001	1,00
Energy	Mobile combustion	Civil Aviation	N2O	0,003	0,002	<0,001	1,00
Energy	Mobile combustion	agriculture	CH4	0,002	0,002	<0,001	1,00
Energy	Mobile combustion	Railways	N2O	0,003	0,002	<0,001	1,00
Energy	Mobile combustion	Military	N2O	0,001	0,002	<0,001	1,00
Energy	Mobile combustion	Navigation	CH4	0,001	0,001	<0,001	1,00
Energy	Mobile combustion	household and gardening	N2O	0,000	0,001	<0,001	1,00
Energy	Mobile combustion	national fishing	CH4	0,000	0,000	<0,001	1,00
Energy	Mobile combustion	Railways	CH4	0,000	0,000	<0,001	1,00
Energy	Mobile combustion	forestry	CH4	0,000	0,000	<0,001	1,00
Energy	Mobile combustion	Military	CH4	0,000	0,000	<0,001	1,00
Energy	Mobile combustion	Civil Aviation	CH4	0,000	0,000	<0,001	1,00
Energy	Mobile combustion	forestry	N2O	0,000	0,000	<0,001	1,00
Industrial Processes	SF6 from magnesium Production		SF6	0,036	0,000	<0,001	1,00
Total				69,52	69,41	1,00	
(1) The base year is 1995 for HFC, PFC and SF6; and 1990 for the other greenhouse gases. The base year is unadjusted to electricity trade.							

Table 2.

Table 7.A2 (of Good Practice Guidance) Tier 1 Analysis - Trend Assessment (DK-inventory)								
A IPCC Source Categories (LULUCF not included)			B Direct Greenh. Gas	C Base Year Estimate (1) Mt CO2-eq	D Year 2001 Estimate Mt CO2-eq	E Trend Assess-ment	F Contri-bution to Trend %	G Cumul. total of col. F %
Energy	CO2 Emission from stationary Combustion	Steam coal	CO2	24,21	16,67	0,1083	26,6	26,6
Energy	CO2 Emission from stationary Combustion	Natural gas	CO2	4,33	11,07	0,0974	23,9	50,5
Energy	CO2 Emission from stationary Combustion	Orimulsion	CO2	0,00	2,42	0,0349	8,6	59,0
Energy	Mobile combustion	Road Transportation	CO2	9,35	11,27	0,0279	6,9	65,9
Energy	CO2 Emission from stationary Combustion	Gas oil	CO2	4,86	3,06	0,0258	6,3	72,2
Agriculture	Direct N2O emissions from Agriculture soils		N2O	6,21	4,49	0,0247	6,1	78,3
Energy	CO2 Emission from stationary Combustion	Residual oil	CO2	2,51	1,57	0,0135	3,3	81,6
Agriculture	Indirect N2O emissions from Nitrogen used in agriculture		N2O	3,59	2,99	0,0086	2,1	83,7
Industrial Processes	CO2 emissions from Cement production		CO2	0,88	1,36	0,0069	1,7	85,4
Energy	Non-CO2 Emission from stationary Combustion		CH4	0,11	0,58	0,0067	1,6	87,0
Agriculture	Enteric fermentation		CH4	3,19	2,75	0,0063	1,5	88,6
Industrial Processes	Emission from substitutes for ODS		HFC+PFC	0,24	0,67	0,0062	1,5	90,1
Energy	Fugitive emissions	Oil and Natural Gas	CO2	0,24	0,63	0,0057	1,4	91,5
Energy	CO2 Emission from stationary Combustion	Kerosene	CO2	0,37	0,02	0,0050	1,2	92,7
Energy	CO2 Emission from stationary Combustion	Petroleum coke	CO2	0,45	0,74	0,0041	1,0	93,8
Energy	Mobile combustion	Road Transportation	N2O	0,13	0,38	0,0036	0,9	94,6
Energy	CO2 Emission from stationary Combustion	Nonbiogenic plast waste	CO2	0,40	0,63	0,0034	0,8	95,5
Energy	Mobile combustion	agriculture	CO2	1,08	1,29	0,0031	0,8	96,2
Energy	Mobile combustion	other mobil and machinery	CO2	0,74	0,88	0,0021	0,5	96,7
Waste	Emission from Solid Waste Disposal sites		CH4	1,31	1,17	0,0020	0,5	97,2
Energy	Mobile combustion	national fishing	CO2	0,80	0,66	0,0020	0,5	97,7
Energy	Mobile combustion	Navigation	CO2	0,54	0,42	0,0016	0,4	98,1
Energy	CO2 Emission from stationary Combustion	LPG	CO2	0,15	0,05	0,0014	0,3	98,5
Energy	Mobile combustion	Railways	CO2	0,30	0,21	0,0012	0,3	98,8
Energy	Fugitive emissions	Oil and Natural Gas	CH4	0,02	0,08	0,0008	0,2	99,0
Industrial Processes	SF6 from other sources of SF6		SF6	0,07	0,02	0,0007	0,2	99,2
Energy	Mobile combustion	Civil Aviation	CO2	0,22	0,17	0,0007	0,2	99,3
Industrial Processes	SF6 from magnesium Production		SF6	0,04	0,00	0,0005	0,1	99,4
Energy	Mobile combustion	Military	CO2	0,12	0,10	0,0003	0,1	99,5
Agriculture	N2O from Manure management		N2O	0,46	0,44	0,0003	0,1	99,6
Industrial Processes	CO2 emissions from Lime production		CO2	0,12	0,10	0,0003	0,1	99,7
Agriculture	Manure management		CH4	0,90	0,88	0,0002	0,1	99,7
Energy	Mobile combustion	household and gardening	CO2	0,07	0,08	0,0002	0,0	99,8
Energy	Mobile combustion	Road Transportation	CH4	0,06	0,07	0,0002	0,0	99,8
Solvent and Other Product Use			CO2	0,12	0,11	0,0002	0,0	99,8
Industrial Processes	SF6 from electrical equipment		SF6	0,00	0,01	0,0001	0,0	99,9
Energy	CO2 Emission from stationary Combustion	Refinery gas	CO2	0,81	0,81	0,0001	0,0	99,9
Energy	Non-CO2 Emission from stationary Combustion		N2O	0,40	0,39	0,0001	0,0	99,9
Energy	Mobile combustion	other mobil and machinery	N2O	0,01	0,01	0,0001	0,0	99,9
Energy	Fugitive emissions	Solid Fuels	CH4	0,07	0,07	0,0000	0,0	100,0
Energy	Mobile combustion	agriculture	N2O	0,01	0,02	0,0000	0,0	100,0
Energy	Mobile combustion	national fishing	N2O	0,02	0,01	0,0000	0,0	100,0
Energy	Mobile combustion	Navigation	N2O	0,01	0,01	0,0000	0,0	100,0
Energy	Fugitive emissions	Oil and Natural Gas	N2O	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	forestry	CO2	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Railways	N2O	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	other mobil and machinery	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Civil Aviation	N2O	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	household and gardening	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	agriculture	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Military	N2O	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Navigation	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Railways	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	household and gardening	N2O	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	national fishing	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	forestry	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Civil Aviation	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	Military	CH4	0,00	0,00	0,0000	0,0	100,0
Energy	Mobile combustion	forestry	N2O	0,00	0,00	0,0000	0,0	100,0
total				69,52	69,41	0,4075	100,0	
(1) The base year is 1995 for HFC, PFC and SF6; and 1990 for the other greenhouse gases. The base year is unadjusted to electricity trade.								

Table 3.

Table 7.A3 (of Good Practice Guidance) Source Category Analysis Summary (DK-inventory)						
Quantitative method used: Tier 1						
A **IPCC Source Categories (LULUCF not included)**			**B** **Direct Greenh. Gas**	**C** **Key Source 2001**	**D** **If C is yes criteria for identi-fikation**	**E** **Comments**
Energy						
	CO2 Emission from stationary Combustion	Steam coal	CO2	Yes	Level, Trend	See text
	CO2 Emission from stationary Combustion	Petroleum coke	CO2	Yes	Level, Trend	See text
	CO2 Emission from stationary Combustion	Nonbiogenic plast waste	CO2	Yes	Level, Trend	Waste Incineration
	CO2 Emission from stationary Combustion	Residual oil	CO2	Yes	Level, Trend	See text
	CO2 Emission from stationary Combustion	Gas oil	CO2	Yes	Level, Trend	See text
	CO2 Emission from stationary Combustion	Kerosene	CO2	Yes	Trend	See text
	CO2 Emission from stationary Combustion	Orimulsion	CO2	Yes	Level, Trend	See text
	CO2 Emission from stationary Combustion	Natural gas	CO2	Yes	Level, Trend	See text
	CO2 Emission from stationary Combustion	LPG	CO2	No		
	CO2 Emission from stationary Combustion	Refinery gas	CO2	Yes	Level	
	Mobile combustion	Civil Aviation	CO2	No		
	Mobile combustion	Road Transportation	CO2	Yes	Level, Trend	See text
	Mobile combustion	Railways	CO2	No		
	Mobile combustion	Navigation	CO2	No		
	Mobile combustion	Military	CO2	No		
	Mobile combustion	national fishing	CO2	Yes	Level	
	Mobile combustion	agriculture	CO2	Yes	Level	See text
	Mobile combustion	forestry	CO2	No		
	Mobile combustion	other mobil and machinery/industry	CO2	Yes	Level	
	Mobile combustion	household and gardening	CO2	No		
	Fugitive emissions	Oil and Natural Gas	CO2	Yes	Level, Trend	See text
	Non-CO2 Emission from stationary Combustion		CH4	Yes	Trend	See text
	Mobile combustion	Civil Aviation	CH4	No		
	Mobile combustion	Road Transportation	CH4	No		
	Mobile combustion	Railways	CH4	No		
	Mobile combustion	Navigation	CH4	No		
	Mobile combustion	Military	CH4	No		
	Mobile combustion	national fishing	CH4	No		
	Mobile combustion	agriculture	CH4	No		
	Mobile combustion	forestry	CH4	No		
	Mobile combustion	other mobil and machinery/industry	CH4	No		
	Mobile combustion	household and gardening	CH4	No		
	Fugitive emissions	Solid Fuels	CH4	No		
	Fugitive emissions	Oil and Natural Gas	CH4	No		
	Non-CO2 Emission from stationary Combustion		N2O	No		
	Mobile combustion	Civil Aviation	N2O	No		
	Mobile combustion	Road Transportation	N2O	Yes	Trend	See text
	Mobile combustion	Railways	N2O	No		
	Mobile combustion	Navigation	N2O	No		
	Mobile combustion	Military	N2O	No		
	Mobile combustion	national fishing	N2O	No		
	Mobile combustion	agriculture	N2O	No		
	Mobile combustion	forestry	N2O	No		
	Mobile combustion	other mobil and machinery/industry	N2O	No		
	Mobile combustion	household and gardening	N2O	No		
	Fugitive emissions	Solid Fuels	N2O	No		
Industrial Processes						
	CO2 emissions from Cement production		CO2	Yes	Level, Trend	See text
	CO2 emissions from Lime production		CO2	No		
	SF6 from magnesium Production		SF6	No		
	SF6 from electrical equipment		SF6	No		
	SF6 from other sources of SF6		SF6	No		
	Emission from substitutes for ODS		HFC+PFC	Yes	Level, Trend	See text
Solvent and Other Product Use						
	Solvent and Other Product Use		CO2	No		
Agriculture						
	Enteric fermentation		CH4	Yes	Level, Trend	See text
	Manure management		CH4	Yes	Level	
	N2O from Manure management		N2O	No		
	Direct N2O emissions from Agriculture soils		N2O	Yes	Level, Trend	See text
	Indirect N2O emissions from Nitrogen used in agriculture		N2O	Yes	Level, Trend	See text
Waste						
	Emission from Solid Waste Disposal sites		CH4	Yes	Level	

Appendix 13

Electricity import/export corrections

Danish Energy Agency
Electricity division

2000-01-28
SLP

Appendix 13 Electricity import/export corrections.

Background.

For statistical purposes and for reporting purposes, the Danish Energy Agency (DEA) produces a correction of actual TPES and emissions in order to follow the *trend* in these indicators without random variations in electricity imports/exports (I/E) and ambient temperature.

In order to produce the I/E correction it is necessary to estimate how much fuel would have been used, if there had been exactly zero imports. This can be done in several ways. There is a complication due to the fact that a substantial fraction of the Danish electricity production is produced as combined heat and power (CHP). For a number of years, the statistics division of the DEA has used a method based on the average fuel consumption for electricity production. This validity of this method (”Statistics method”) was questioned after the 1996 experience wih massive electricity exports. The reasoning was, that the marginal electricity plant in case of large exports would be substantially less efficient than the average plant. As a consequence, a number of other correction methods were investigated.

This paper describes and compares three methods for electricity imports/exports correction.

1: Statistics method.

The statistics division of the DEA until 1997 computed the I/E correction as follows: Firstly, the total fuel consumtion in all electricity producing plants was added. Secondly, the fuel used for heat in CHP plants was subtracted[1]. This gives the total fuel for electricity production. Thirdly, this is divided by the total electricity production to produce an average CO_2 content in a kWh. And finally, this is multiplied by the I/E to produce the I/E correction.

Thus the I/E correction with the statistics method is based on the average plant. The corrected emission is calculated as follows:

$$Emi_{Corr} = Emi \times \left(1 - \frac{H}{Eff_h \times En}\right) \times \frac{I}{P}$$

where:

Emi - is the calculated total emission from central power plants in tonnes.

[1] The fuel consumption for heat in central CHP plants was calculated using a marginal heat efficiency (currently around 256%). The fuel consumption for heat in small-scale decentralised CHP plants was calculated using a pro rata principle.

H	- is the heat production at the power plants, used for district heating in PJ.
En	- is the total fuel consumption at the central power plants in PJ.
I	- is the imported or exported electricity in kWh.
P	- is the produced electricity at the central power plants in kWh.
Eff_h	- is the marginal efficiency of heat production, estimated to be 2.0.

In a year like 1996 with excessive export this was expected to underestimate the I/E correction since the marginal plants would play a dominant role. Another weakness with the statistics method is the fact that the fuel mix in small-scale CHP-plants contributes to the I/E correction. Since their electricity production is fixed by the local heat demand, this is not consistent with the actual functioning of the load dispatch.

2: RAMSES method.

A more correct estimate of the I/E correction can be made by simulating the economic load dispatch of the actual electricity system with and without I/E. This in principle produces a physically and economically correct distribution on electricity plants of the extra or reduced production due to I/E.

The DEA has made such a calculation for 1988, 1990, 1995 and 1996 on a simulation tool (RAMSES). This model has been used extensively by the DEA for energy planning of the power sector for the last 10 years. The model produces a simplified system simulation, representing Denmark by one electricity and 28 district heating areas.

3: SOxNOx method.

The two system operators Elsam and Elkraft must every year before the first of May submit detailed information on SO_2 and NO_x emissions in their areas, subject to Danish law[2]. Included in this annual submission is a calculation of the I/E correction.

The method used to produce this I/E correction (SOxNOx method) is a simulation as with the RAMSES method. Only the model used is not RAMSES but a simulation tool developed by the system operators.

The SOxNOx method is slightly more “realistic” than the RAMSES method, since planned and unplanned outages are not modelled but taken from actual operating records.

[2] Government order no. 885 of 18 December 1991 by the Environmental Protection Agency under the Environmental Protection Act.

Comparison.

In the table below computed I/E corrections are compared using the three methods. For comparison, the total CO_2 emission from the whole energy sector was a little more than 60 mill. tonnnes in 1988.

Year	Imports TWh	Statistics mill. t of CO2	RAMSES mill. t of CO2	SOxNOx mill. t of CO2
1988	**4.21**	**3.81**	**3.83**	**3.71**
1990	**7.05**	**6.29**	**6.30**	**6.41**
1995	**-0.79**	**-0.60**	**-0.70**	**-0.69**
1996	**-15.40**	**-12.23**	**-13.47**	**-13.32**

Net imports and I/E corrections in mill. tonnes of CO_2.

Denmark imported electricity in 1988 and 1990, hence the I/E correction is positive. Denmark exported electricity in 1995 and 1996, hence the I/E correction for these years is negative.

Conclusion.

For 1988, 1990 and 1995 the three methods produce very similar results. This indicates that the statistics metod in spite of the flaws mentioned is useful at moderate I/E levels.

However for 1996 the statistics metod is unable to handle the large electricity export correctly. The more correct RAMSES and SOxNOx methods give a substantially higher I/E correction – the difference is 1.1-1.3 mill. tonnes of CO_2. However, even in 1996 the RAMSES and SOxNOx methods (the simulation tools) are in fine agreement.

On this basis it has been chosen to use the SOxNOx method for the hole period since

- The method is more correct (physically and economically).
- It is based on annual submissions from the power companies subject to Danish law.
- The results from the annual SOxNOx submissions can be controlled with reasonable accuracy on the RAMSES model by the DEA.

Date 2002-04-12

Degree Day Correction of Fuel Consumption

The Degree Day Factor

A registered fuel consumption for a specific sector, B, in a year with degree days G may be compared with the fuel consumption in a normal year with degree days Gn according to the following formula:

$$B = Bn \bullet (1-r) + Bn \bullet r \bullet (1-a) + Bn \bullet r \bullet a \bullet G/Gn = Bn \bullet (1-r \bullet a \bullet (1-G/Gn))$$

where

Bn = the total fuel consumption of the normal year
r = share of the normal year's fuel consumption used for heating purposes
a = share of the normal year's fuel consumption used for heating which is dependent on degree days

If the normal year's fuel consumption is to be calculated as the product of the actual consumption multiplied by a degree day factor Fg, the following formula is used

$$Bn = B \bullet Fg$$

where

$$Fg = 1/(1- r \bullet a \bullet (1-G/Gn))$$

Degree Days

The Danish Meteorological Institute (DMI) measures degree days. Degree days are published as an average of the measurements made by a number of selected observing stations. The used reference temperature is 17^{o} C and the degree days are measured every day of the year.

The normal year excluding the summer period is calculated as the average of the period 1971-90. It has 3175 shadow degree days. Degree days in the summer period were not registered before 1987 and the average for the period 1987-1998 is 195, which results in a total normal year's degree days of 3370. Table 1 shows the degree days for this period.

Table 1
Shadow Degree Days from DMI

	Period		
Year	Winter	Summer	Total
1987	3509	336	3845
1988	3010	151	3161
1989	2736	190	2926
1990	2704	153	2857
1991	3074	210	3284
1992	2938	84	3022
1993	3152	282	3434
1994	2974	174	3148
1995	3142	155	3297
1996	3559	278	3837
1997	3153	83	3236
1998	2969	248	3217
1999	2881	175	3056
2000	2662	240	2902
Normal Year[3]	3175	195	3370

The degree day correction is based on the assumption that only the fuel consumption for space heating depends on the outdoor temperature. Furthermore it is assumed that the fuel consumption for heating may be divided into two parts: one which is independent of the outdoor temperature and one which is directly proportional to the degree day figure.

Consequently, for each sector and for each type of fuel a value has to be stated for r and a.

Based upon registrations and estimates, the following shares of the various types of fuels for heating and the stated degree day dependent shares are used.

[3] The normal year winter period is the average of the period 1971-90. The normal year summer period is the average of the period 1987-98 due to lack of data. These two put together constitute the total degree days of the normal year.

Table 2 Share for heating (r)	Agriculture and Forestry	Horti-cultur e	Fishing	Manu-facturin g	Con-struction	Whole-sale	Retail	Private service	Public service
Gas works gas	0,00	0,00	0,00	0,20	0,00	0,00	0,00	1,00	1,00
District heating	0,00	1,00	0,00	0,50	0,00	0,90	1,00	1,00	1,00
Coal	1,00	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Brown coal	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Cokes and foundry furnace cokes	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Petroleum	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Gas oil	0,80	1,00	0,00	0,50	1,00	0,70	0,90	0,80	1,00
Fuel oil	1,00	1,00	0,00	0,10	0,00	1,00	1,00	1,00	1,00
LPG	1,00	1,00	0,00	0,10	0,00	0,20	0,40	0,20	0,20
Electricity	0,10	0,00	0,00	0,02	0,00	0,04	0,04	0,04	0,04
Crude oil cokes	1,00	1,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Orimulsion	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Natural gas	1,00	1,00	0,00	0,20	1,00	0,70	1,00	0,90	1,00
Wood and waste wood	0,00	1,00	0,00	0,30	0,00	0,00	0,00	0,00	0,00
Straw	1,00	0,00	0,00	1,00	0,00	0,00	0,00	0,00	0,00
Waste	0,00	0,00	0,00	0,50	0,00	0,00	0,00	0,00	0,00
Biogas	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Refinery gas	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Table 3 Share dependent on degree days (a)	Agriculture and Forestry	Horti-cultur e	Fishing	Manu-facturin g	Con-struction	Whole-sale	Retail	Private service	Public service
Gas works gas	0,50	0,50	0,00	0,50	0,50	0,50	0,50	0,50	0,50
District heating	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Coal	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Brown coal	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Cokes and foundry furnace cokes	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Petroleum	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Gas oil	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Fuel oil	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
LPG	0,50	0,50	0,00	0,50	0,50	0,50	0,50	0,50	0,50
Electricity	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Crude oil cokes	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Orimulsion	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Natural gas	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Wood and waste wood	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Straw	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Waste	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Biogas	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65
Refinery gas	0,50	0,90	0,00	0,50	0,50	0,65	0,65	0,65	0,65

Table 4 **Single-family houses and multi-storey buildings**	Share for heating (r)	Share dependent on heating (a)
LPG	**	0,65
Petroleum	1,00	0,65
Gas/diesel oil	1,00	0,65
Fuel oil	1,00	0,65
Petroleum coke	1,00	0,65
Natural gas	1,00	0,65
Other coal	1,00	0,65
Cokes	1,00	0,65
Brown coal	1,00	0,65
Solar heating	1,00	0,00
Straw	1,00	0,65
Wood	1,00	0,65
Wood chips	1,00	0,65
Wood pellets	1,00	0,65
Biogas	1,00	0,65
Heat pumps	1,00	0,00
Electricity	**	0,65
District heating	1,00	0,65
Town gas	**	0,65

** Varies each year, cf. Table 5.

Table 5 **Share for heating (r)**				
	Single-family houses		Multi-storey buildings	
Year	Electricity	LPG and town gas	Electricity	LPG and town gas
1990	0,28	0,76	0,14	0,71
1991	0,29	0,76	0,15	0,71
1992	0,28	0,76	0,14	0,71
1993	0,29	0,76	0,15	0,71
1994	0,28	0,76	0,14	0,71
1995	0,28	0,76	0,14	0,71
1996	0,29	0,76	0,14	0,71
1997	0,26	0,76	0,13	0,71
1998	0,26	0,76	0,12	0,71
1999	0,25	0.76	0,12	0,71
2000	0,23	0,76	0,11	0,71

Appendix 14

Uncertainty

Appendix 14

Table 1 Uncertainty

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor	Uncertainty in trend in national emissions introduced by activity data	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Gg CO2 eq	Gg CO2 eq	%	%	%	%	%	%	%	%	%
Stationary Combustion, Coal	CO2	24209	16668	1	5	5,099	1,317	-0,110	0,255	-0,551	0,361	0,658
Stationary Combustion, Petroleum coke	CO2	455	742	3	5	5,831	0,067	0,004	0,011	0,022	0,048	0,053
Stationary Combustion, Residual oil	CO2	2505	1567	2	2	2,828	0,069	-0,014	0,024	-0,028	0,068	0,073
Stationary Combustion, Gas oil	CO2	4858	3063	4	5	6,403	0,304	-0,026	0,047	-0,132	0,265	0,296
Stationary Combustion, Kerosene	CO2	366	21	4	5	6,403	0,002	-0,005	0,000	-0,026	0,002	0,026
Stationary Combustion, Orimulsion	CO2	0	2419	1	2	2,236	0,084	0,037	0,037	0,074	0,052	0,091
Stationary Combustion, Natural gas	CO2	4330	11075	3	1	3,162	0,543	0,104	0,169	0,104	0,719	0,726
Stationary Combustion, LPG	CO2	148	55	4	5	6,403	0,006	-0,001	0,001	-0,007	0,005	0,008
Stationary Combustion, Refinery gas	CO2	806	813	3	5	5,831	0,073	0,000	0,012	0,001	0,053	0,053
Stationary combustion plants, gas engines	CH4	5	443	2,2	40	40,060	0,275	0,007	0,007	0,268	0,021	0,269
Stationary combustion plants, other	CH4	110	137	2,2	100	100,024	0,212	0,000	0,002	0,043	0,006	0,044
Stationary combustion plants	N2O	396	391	2,2	1000	1000,002	6,056	0,000	0,006	-0,007	0,019	0,020
Mobile combustion, Civil Aviation, aviation gasoline	CO2	8	7	2	5	5,385	0,001	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Civil Aviation, jet kerosene	CO2	208	161	2	5	5,385	0,013	-0,001	0,002	-0,003	0,007	0,008
Mobile combustion, Road Transportation gasoline	CO2	4914	6025	2	5	5,385	0,503	0,018	0,092	0,090	0,261	0,276
Mobile combustion, Road Transportation, diesel oil	CO2	4436	5248	2	5	5,385	0,438	0,013	0,080	0,066	0,227	0,237
Mobile combustion, Railways, diesel oil	CO2	298	212	2	5	5,385	0,018	-0,001	0,003	-0,006	0,009	0,011
Mobile combustion, Navigation, residual oil	CO2	278	118	2	5	5,385	0,010	-0,002	0,002	-0,012	0,005	0,013
Mobile combustion, Navigation, gas/diesel oil	CO2	228	267	2	5	5,385	0,022	0,001	0,004	0,003	0,012	0,012
Mobile combustion, Agriculture, diesel oil	CO2	1050	1255	20	5	20,616	0,401	0,003	0,019	0,017	0,543	0,543
Mobile combustion, Agriculture, gasoline	CO2	31	37	20	5	20,616	0,012	0,000	0,001	0,000	0,016	0,016
Mobile combustion, Forestry, diesel oil	CO2	0	0	20	5	20,616	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Forestry, gasoline	CO2	4	4	20	5	20,616	0,001	0,000	0,000	0,000	0,002	0,002
Mobile combustion, Industry, diesel oil	CO2	599	715	20	5	20,616	0,228	0,002	0,011	0,009	0,309	0,310
Mobile combustion, Industry, gasoline	CO2	9	10	20	5	20,616	0,003	0,000	0,000	0,000	0,004	0,004
Mobile combustion, Industry, LPG	CO2	129	155	20	5	20,616	0,049	0,000	0,002	0,002	0,067	0,067
Mobile combustion, Household and gardening, gasoline	CO2	71	85	20	5	20,616	0,027	0,000	0,001	0,001	0,037	0,037
Mobile combustion, Civil Aviation, aviation gasoline	CH4	0	0	2	100	100,020	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Civil Aviation, jet kerosene	CH4	0	0	2	100	100,020	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Road Transportation gasoline	CH4	48	61	2	40	40,050	0,038	0,000	0,001	0,009	0,003	0,009
Mobile combustion, Road Transportation, diesel oil	CH4	7	7	2	40	40,050	0,004	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Railways, diesel oil	CH4	0	0	2	100	100,020	0,000	0,000	0,000	0,000	0,000	0,000

Mobile combustion, Navigation, residual oil	CH4	0	0	2	100	100,020	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Navigation, gas/diesel oil	CH4	0	0	2	100	100,020	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Agriculture, diesel oil	CH4	1	2	20	100	101,980	0,002	0,000	0,000	0,000	0,001	0,001
Mobile combustion, Agriculture, gasoline	CH4	0	1	20	100	101,980	0,001	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Forestry, diesel oil	CH4	0	0	20	100	101,980	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Forestry, gasoline	CH4	0	0	20	100	101,980	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Industry, diesel oil	CH4	1	1	20	100	101,980	0,001	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Industry, gasoline	CH4	0	0	20	100	101,980	0,001	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Industry, LPG	CH4	3	3	20	100	101,980	0,005	0,000	0,000	0,001	0,001	0,002
Mobile combustion, Household and gardening, gasoline	CH4	2	3	20	100	101,980	0,004	0,000	0,000	0,001	0,001	0,001
Mobile combustion, Civil Aviation, aviation gasoline	N2O	0	0	2	1000	1000,002	0,001	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Civil Aviation, jet kerosene	N2O	3	2	2	1000	1000,002	0,038	0,000	0,000	-0,007	0,000	0,007
Mobile combustion, Road Transportation gasoline	N2O	47	271	2	50	50,040	0,210	0,003	0,004	0,172	0,012	0,173
Mobile combustion, Road Transportation, diesel oil	N2O	84	110	2	50	50,040	0,085	0,000	0,002	0,020	0,005	0,021
Mobile combustion, Railways, diesel oil	N2O	3	2	2	1000	1000,002	0,028	0,000	0,000	-0,011	0,000	0,011
Mobile combustion, Navigation, residual oil	N2O	5	2	2	1000	1000,002	0,036	0,000	0,000	-0,046	0,000	0,046
Mobile combustion, Navigation, gas/diesel oil	N2O	4	5	2	1000	1000,002	0,078	0,000	0,000	0,012	0,000	0,012
Mobile combustion, Agriculture, diesel oil	N2O	14	16	20	1000	1000,200	0,253	0,000	0,000	0,043	0,007	0,044
Mobile combustion, Agriculture, gasoline	N2O	0	0	20	1000	1000,200	0,004	0,000	0,000	0,001	0,000	0,001
Mobile combustion, Forestry, diesel oil	N2O	0	0	20	1000	1000,200	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Forestry, gasoline	N2O	0	0	20	1000	1000,200	0,000	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Industry, diesel oil	N2O	8	9	20	1000	1000,200	0,145	0,000	0,000	0,025	0,004	0,025
Mobile combustion, Industry, gasoline	N2O	0	0	20	1000	1000,200	0,001	0,000	0,000	0,000	0,000	0,000
Mobile combustion, Industry, LPG	N2O	2	2	20	1000	1000,200	0,036	0,000	0,000	0,006	0,001	0,006
Mobile combustion, Household and gardening, gasoline	N2O	0	1	20	1000	1000,200	0,009	0,000	0,000	0,002	0,000	0,002
Energy, fugitive emissions, oil and natural gas	CO2	240	633	15	5	15,811	0,155	0,006	0,010	0,030	0,206	0,208
Energy, fugitive emissions, solid fuels	CH4	72	69	2	200	200,010	0,213	0,000	0,001	-0,008	0,003	0,008
Energy, fugitive emissions, oil and natural gas	CH4	21	78	15	50	52,202	0,063	0,001	0,001	0,044	0,025	0,051
Energy, fugitive emissions, oil and natural gas	N2O	1	3	15	50	52,202	0,003	0,000	0,000	0,002	0,001	0,002
Agriculture, enteric fermentation	CH4	3189	2747	2	20	20,100	0,856	-0,006	0,042	-0,122	0,119	0,171
Agriculture, manure management	CH4	900	884	10	30	31,623	0,433	0,000	0,014	-0,002	0,191	0,191
Agriculture, N2O from manure management	N2O	462	442	10	500	500,100	3,422	0,000	0,007	-0,111	0,096	0,146
Agriculture, Agricultural soils	N2O	9797	7477	20	500	500,400	57,983	-0,034	0,114	-16,756	3,235	17,066
Total		65371	64527				3414,435					293,080

Total uncertainties	**Overall uncertainty in the year (%):**	**58,433**		**Trend uncertainty (%):**	**17,120**

National Environmental Research Institute

The National Environmental Research Institute, NERI, is a research institute of the Ministry of the Environment. In Danish, NERI is called *Danmarks Miljøundersøgelser (DMU)*.
NERI's tasks are primarily to conduct research, collect data, and give advice on problems related to the environment and nature.

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Publications:
NERI publishes professional reports, technical instructions, and the annual report. A R&D projects' catalogue is available in an electronic version on the World Wide Web.
Included in the annual report is a list of the publications from the current year.