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Tema: Emissions Inventories

Titel: Denmark's National Inventory Report - Submitted under the United Nations Framework Convention on Climate Change

Miljø- og Energiministeriet, Danmarks Miljøundersøgelser

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Denmark's National Inventory Report
Submitted under the United Nations Framework Convention on Climate Change

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Maj 2000

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 2000. The report contains information on Denmark's inventories for all years from 1990 to 1998 for CO_2, CH_4, N_2O, NO_x, CO, NMVOC, SO_2, HFCs, PFCs and SF.
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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 2000. The report contains information on Denmark's inventories for all years from 1990 to 1998. The level of detail will be further elaborated during the trial period 2000-2001 in order to be able to submit separately, by 1 July 2001, information to the secretariat on experiences with using these new guidelines as invited in Decision 3/CP.5.

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

(a) The annual inventory information 1990-1998
(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

The report contains the following appendices:

Appendix 1: Denmark's annual emission inventories 1990 – 1998
Appendix 2: Denmark's emission/removal trend tables 1990 - 1998
Appendix 3: Information on Greenland and the Faroe Islands
Appendix 4: Emission factors used for fuel combustion (an overview table)
Appendix 5: Description of the CORINAIR inventory programme
Appendix 6: List of all CORINAIR sub-sectors
Appendix 7: Translation between CORINAIR and IPCC codes
Appendix 8: Methodology regarding removals by sinks
Appendix 9: Methodology regarding electricity exchange adjustments
Appendix 10: Methodology regarding outside temperature variations adjustments
Appendix 11: CH_4 and N_2O from agriculture
Appendix 12: CO_2 from plastic in municipal waste
Appendix 13: Changes with respect to the previous submissions

(a) The annual inventory information 1990 - 1998

Since 1994 the CORINAIR-software developed by the Topic Centre for Air Emissions under the European Environmental Agency has been used in Denmark for collecting, storing and reporting emission data. During 1998-99 new software was developed in order to be able to present the CORINAIR inventory information in the IPCC format. After the adoption of the new UNFCCC REPORTING GUIDELINES ON ANNUAL INVENTORIES containing the IPCC-like UNFCCC Common Reporting Format (CRF) the Topic Centre has decided to develop a new software system in order to meet the new requirements. However, this software is still not ready for use. Therefore, in this report, the annual CORINAIR inventory information is presented in the IPCC-format with additional tables on chemical species of HFCs and PFCs used in Denmark, totals in CO_2 equivalents calculated by using 1995 IPCC global warming potentials (GWP) values, totals with electricity exchange and outside temperature variation taken into account and on emission/removal trends. Tables with emission/removal trends are presented in the CRF.

The annual emission inventories for 1990 to 1998 are given in Appendix 1 and includes the following set of tables for each year:

- Table 1: Sectoral report for energy
  - A: Fuel combustion activities
  - B: Fugitive emissions from fuels
- Table 2: Sectoral report for industrial processes
  - A: Mineral production
  - B: Chemical industry
  - C: Metal production
  - D: Other production
  - F: Consumption of halocarbons and sulphur hexaflouride
- 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 5: Sectoral report for land-use change and forestry
  - A: Changes in forests and other woody biomass stocks
- Table 6: Sectoral report for waste
  - A: Solid waste disposal on land
- Table 7A: Summary report for national greenhouse gas inventories
- Table 7B: Short summary report for national greenhouse gas inventories
- Short summary report for national greenhouse gas inventories with electricity exchange and outside temperature variation taken into account.
- Denmark's emission inventory as GWP-values
- Short summary report for national greenhouse gas inventories as GWP-values with electricity exchange and outside temperature variation taken into account.

The emission/removal trend tables are given in Appendix 2.

Geografic 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. However, due to the lack of data, previous submissions to the Convention did not include the greenhouse gas emissions in Greenland and the Faroe Islands. Now, preliminary inventories are available for the CO_2-emissions. It has is not been possible to present a complete inventory in IPCC format in this report, though. In Appendix 3 information and the preliminary Greenland and the Faroe Islands inventories are given. Apart from Appendix 3 the information in this report only relate to Denmark.

(b) Database information

The emission inventory tables are made from the Danish CORINAIR-database, and detailed information on the emission factors and activity data can be made available in an electronic copy on request. In Appendix 4 an overview table with emission factors used for fuel combustion in the 1990 – 1998 emission inventories, is shown.

(c) Methodologies

The general metodology

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[1]. 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 (CORINAIR, 1996).

A thorough description of the CORINAIR inventory programme used for Danish emission estimations is given in Appendix 5. 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 ismainly based on official statistics. The most consistent emission factors have been used, either as measured values or default factors proposed by the CORINAIR methodology.

The CORINAIR part dealing with emissions from road transportation has been calculated as described in Appendix 5 by using the COPERT II model developed under the EU/EEA.

A list of all sub-sectors on the most detailed level is given in Appendix 6. 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 Appendix 7.

[1] Annex 2 in the Reporting Instructions of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories

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 better to reflect national circumstances in accordance with the under lying principles of these guidelines[2]. Below, some of these underlying methodologies are mentioned.

The specific methodology regarding HFCs, PFCs and SF_6
The methodology for the calculation of actual emissions of HFCs, PFCs and SF_6 is taken directly from Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. Further information can be obtained in the annual reports on the consumption and emission of ozone depleting substances and the greenhouse gases HFCs, PFCs and SF_6 from the Danish Environmental Protection Agency.

The specific methodology regarding removals by sinks
Regarding removals by sinks the methodology is also based on the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. So far, only sequestration in forests is taken into account in the Danish inventory. Appendix 8 contains more information on the methodology used.

The specific methodologies regarding adjustments for electricity exchange and outside temperature variations
In the UNFCCC REPORTING GUIDELINES ON ANNUAL INVENTORIES Parties are encouraged to give information on application of adjustments as it is regarded as important information in relation to the monitoring of emission and removal trends and the performance of national policies and measures.

In Appendix 1 the application of adjustments is reported separately in a transparent manner. The methodology followed in the case of application of adjustment/ correction for electricity exchange is described in Appendix 9 and the methodology followed in the case of application of adjustment/correction for outside temperature variations is described in and Appendix 10.

(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. Copenhagen: European Environment Agency,1999"[3]. The documentation on the COPERT II is given in "COPERT II Computer Programme to calculate Emissions from Road Transport, Users Manual, Technical report No. 5, By Leonidas Ntziachristos and Zissis Samaras, ETC/AEM, November 1997, European Environment Agency"[4].
As mentioned above some parts of the underlying methodologies are taken directly from the the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories[5] e.g. regarding the calculation of actual emissions of HFCs, PFCs and SF_6 where further information can be obtained in the annual reports on the consumption

[2] Introduction to the Reporting Instructions of the Revised 1996 IPCC Guidelines for National Greenhouse

[3] http://themes.eea.eu.int/showpage.php/state/air?pg=40512

[4] http://themes.eea.eu.int/toc.php/state/air?doc=39138&l=en

[5] http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.htm 2

and emission of ozone depleting substances and the greenhouse gases HFCs, PFCs and SF_6 from the Danish Environmental Protection Agency and where the references can be found in "Ozon-lagsnedbrydende stoffer og drivhusgasserne HFC'er, PFC'er og SF_6 - Danmarks forbrug og emissioner 1998"[6].

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[6]) obtained from directly producers and consumers. In some of the appendices specific references related to the subject dealt with in the appendix are given.

Regarding emission factors the references are mainly the Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook mentioned above and the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. In some few cases data on the emissions are coming directly from measurements instead of calculations from emission factors.

(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 above. Information on the rationale for their selection is one of the issues where the level of detail are planned to be further elaborated during the trial period 2000-2001.

(f) Feedstocks and bunkers

Feedstocks

The Danish energy statistics, which are used as activity data in the emission inventory calculations, do not include feedstocks and neither do the emission inventory then. However, emissions from some of the products produced on the basis of feedstocks are taken into account e.g. emissions from the use of solvents and from incineration of plastic in municipal waste (see Appendix 12).

Bunkers

In the danish emission inventories presented in the IPCC-format the distinction between domestic marine and aviation emissions, which are to be included in the national totals, and international bunker emissions, is made in accordance with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. This means that domestic marine and aviation emissions are emissions that are coming from the transportation between two national harbours or airports. However, a minor part of the present international bunker emissions is actually emissions coming from transportation between Denmark and Greenland and between Denmark and the Faroe Islands. These emissions should be included in the national totals due to the circumstances mentioned under (a). This issue will be further elaborated in the near future.

[6] http://www.mst.dk/200003publikat/87-7909-882-7/default.htm

(g) Recalculations
Since the submission of Denmark's Second National Communication on Climate Change to the UNFCCC three main changes to the Danish emission inventories have been carried out.

Agriculture, CH_4 and N_2O (IPCC Table 4 in Appendix 1)
The method used to calculate the emissions of N_2O from agriculture soils and manure management has been changed according to the new methodology in the 1996 IPPC Guidelines, IPCC (1997). Some adjustments of the new method and of emission factors, etc, have been made to account for specific Danish conditions and data availability. New information on CH_4 emission factors from enteric fermentation and manure management for Danish conditions have been used to recalculate the CH_4 emissions (Appendix 11).

Municipal waste, CO_2 (IPCC Table 1A1 in Appendix 1)
The emission of CO_2 from plastic in municipal waste has been included in the total CO_2 emission (Appendix 12).

Road transport, CO_2, CH_4, N_2O, NO_x, CO, NMVOC and SO_2 (IPCC Table 1A3 in Appendix 1)
The emissions have been updated using COPERT II instead of COPERT 90.

Some of the above mentioned changes were already included in the annual emission inventories submitted in 1998 (the 1996 Inventory) and in 1999 (the 1997 Inventory). The actual changes with respect to the previous submissions are shown in Appendix 13.

(h) Uncertainties
The uncertainty on the emissions arises from the uncertainty on the activity data, the uncertainty on the emission factors and the uncertainty arising from whether all (major) sources of emissions are included in the inventory.
It is assumed that the top-down estimates based on the energy statistic are more accurate than the bottom-up estimates based on less well known activity data, e.g. average annual mileage of gasoline driven cars, which means that discrepancies are eliminated by updating some of the most uncertain parameters in the activity data to fit with the energy statistics, e.g. consumption of gasoline sold for road transportation.

In Denmark's 2nd National Communication to the Convention it is stated that the statistics are the official Danish statistics and the emission factors measurements originate from either existing Danish plants or from comparable European installations. It is also assumed that the uncertainty is greatest for the inventories of NMVOC, CH_4 and N_2O, perhaps with an uncertainty factor of 2, while the uncertainty on the CO and NO_x inventories is assumed to be less than 30 – 40% and the uncertainty with the CO_2 may be as low as 1 – 2%.

Applying the methodology mentioned in Annex 1 of the Reporting Instructions of the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories these estimates lead to an overall uncertainty on the GHG emissions in CO_2 equivalents of ± 23 %. In compare the default uncertainties in the same Annex 1 lead to an overall uncertainty on the GHG emissions in CO_2 equivalents of ± 22 %. This absolute

uncertainty might represent an overestimate in compare to the uncertainty when trends in data are analysed. It should be noted that neither the national based estimation nor the calculation based on the IPCC default values and methodology takes into account the 35 % uncertainty on the GWP-factors.

Sensitivity analyses shows that it is the huge uncertainty on N_2O from agricultural soils, which are the key factor of the overall uncertainty of the Danish GHG inventory.

(i) Information on quality assurance/quality control (QA/QC)
In the preparation of Denmark's annual emission inventories some quality control (QC) is performed. A part from the UNFCCC's In-Depth-Reviews, Quality Assurance (QA) with independent review of the inventories has not yet been carried out. The IPCC is currently developing 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 upon the adoption of the IPCC's Good Practice Guidance.

(j) Changes with respect to the previous years
As mentioned under (g) on recalculations several changes have been made with respect to the previous years. In Appendix 13 these changes are shown.

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Appendix 1

Denmark's annual emission inventories 1990 – 1998

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Title of Inventory	Denmark 1990
Contact Name	Jytte Boll Illerup
Title	
Organisation	National Environmental Research Institute
Address	P.O.Box 358, DK-4000 Roskilde
Inventory edited	March 30, 2000
Phone	+45 46301289
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E-Mail	Jytte.Illerup@dmu.dk
Is uncertainty addressed?	no
Related documents filed with IPCC	

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**51756,3**	**23,24**	**1,83**	**275,80**	**635,69**	**110,37**	**182,48**
A Fuel Combustion Activities (Sectoral Approach)	**51516,3**	**10,81**	**1,82**	**274,50**	**601,59**	**102,47**	**182,48**
1 Energy Industries	**26215,7**	**1,07**	**0,87**	**95,80**	**8,00**	**1,16**	**133,32**
a Public Electricity and Heat Production	24823,6	0,85	0,84	91,70	7,57	1,01	125,63
b Petroleum Refining	1392,1	0,22	0,03	4,11	0,44	0,15	7,69
c Manufacture of Solid Fuels and Other Energy Industries	0,0	0,00	0,00	0,00	0,00	0,00	0,00
2 Manufacturing Industries and Construction	**5776,4**	**0,62**	**0,18**	**19,22**	**8,62**	**2,41**	**22,01**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	5776,4	0,62	0,18	19,22	8,62	2,41	22,01

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**10741,4**	**2,72**	**0,47**	**121,60**	**485,58**	**86,08**	**13,48**
a Civil Aviation	54,5	0,00	0,00	0,22	0,03	0,02	0,00
b Road Transportation	9348,1	2,65	0,40	97,49	477,96	83,43	5,80
c Railways	298,2	0,02	0,01	4,32	1,34	0,73	0,38
d Navigation	483,4	0,01	0,03	8,73	1,13	0,36	6,59
e Pipeline Transport	557,2	0,04	0,03	10,84	5,12	1,53	0,71
4 Other Sectors	**8663,8**	**6,39**	**0,31**	**37,28**	**99,17**	**12,75**	**13,66**
a Commercial/Institutional	1489,7	0,26	0,04	1,25	3,77	0,28	1,73
b Residential	4966,6	5,84	0,17	4,63	77,02	8,32	6,58
c Agriculture/Forestry/Fishing	2207,6	0,29	0,11	31,40	18,38	4,15	5,35
5 Other (please specify)	**119,0**	**0,01**	**0,00**	**0,59**	**0,22**	**0,08**	**0,02**
B Fugitive Emissions from Fuels	**240,0**	**12,43**	**0,00**	**1,30**	**34,10**	**7,90**	**0,00**
1 Solid Fuels	**0,0**	**3,30**	**0,00**	**0,00**	**33,25**	**0,00**	**0,00**
a Coal Mining	0,0	3,30	0,00	0,00	33,25	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**240,0**	**9,13**	**0,00**	**1,30**	**0,84**	**7,90**	**0,00**
a Oil	0,0	0,00	0,00	0,00	0,00	4,22	0,00
b Natural Gas	0,0	8,45	0,00	0,00	0,00	3,31	0,00
c Venting and Flaring	240,0	0,68	0,00	1,30	0,84	0,37	0,00

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.
To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

-107,09	-0,10	0,00	-1,65	-21,91	-3,63	0,03

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**9184,6**	**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**
International Bunkers	**4986,2**	**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**
Aviation	1926,9	0,08	0,05	8,02	2,13	0,93	0,12
Marine	3059,4	0,07	0,20	76,49	7,18	2,26	54,73
CO2 Emissions from Biomass	**4198,3**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1005,5**	**0**	**0**	**0,81**	**0**	**0**	**0,33**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
A Mineral Products	**1005,5**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	882,9	0	0	0	0	0	0		0		0		0
2 Lime Production	122,6	0	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0,81**	**0**	**0**	**0,33**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0,81	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0,33		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0000**	**0,0000**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0000	0,0000
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0		0,0000	0,0000	0,0000		0
2 Foam Blowing	0	0	0	0	0	0	0	0,0000	0,0000		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0000	0,0000
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,0000	0,0000	1300	HFC-402a	0,0000	0,0000	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0000	0,0000	140	HFC-404a	0,0000	0,0000	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0000	0,0000	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**131,83**	**0**	**42,30**
A Paint Application	79,18	0	25,4
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	8,25	0	2,65
D Other (please specify)	44,41	0	14,25

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**192,86**	**33,09**	**0**	**0**	**1,08**
A Enteric Fermentation	**150,1**	**0**	**0**	**0**	**0**
1 Cattle	133,9	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,27	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,69	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	14,25	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**42,75**	**1,49**	**0**	**0**	**0**
1 Cattle	18,8	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,07	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,04	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	23,47	0	0	0	0
9 Poultry	0,65	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,21	0	0	0
12 Solid Storage and Dry Lot	0	1,28	0	0	0
13 Other (please specify)	-0,28	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**31,6**	**0**	**0**	**1,08**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-916,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-916,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -916,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**62,40**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**62,40**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	62,40	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**52893,7**	**-916,0**	**278,49**	**34,92**	**276,61**	**635,69**	**163,06**	**182,81**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Energy	**51756,3**		**23,24**	**1,83**	**275,80**	**635,69**	**110,37**	**182,48**						
A Fuel Combustion (Sectoral Approach)	51516,3		10,81	1,82	274,50	601,59	102,47	182,48						
1 Energy Industries	26215,7		1,07	0,87	95,80	8,00	1,16	133,32						
2 Manufacturing Industries and Construction	5776,4		0,62	0,18	19,22	8,62	2,41	22,01						
3 Transport	10741,4		2,72	0,47	121,60	485,58	86,08	13,48						
4 Other Sectors	8663,8		6,39	0,31	37,28	99,17	12,75	13,66						
5 Other (please specify)	119,0		0,01	0,00	0,59	0,22	0,08	0,02						
B Fugitive Emissions from Fuels	240,0		12,43	0,00	1,30	34,10	7,90	0,00						
1 Solid Fuels	0,0		3,30	0,00	0,00	33,25	0,00	0,00						
2 Oil and Natural Gas	240,0		9,13	0,00	1,30	0,84	7,90	0,00						
2 Industrial Processes	**1005,5**		**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
A Mineral Products	1005,5		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,81	0,00	0,00	0,33		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0000	0,0000
D Other Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**131,8**		**0,00**	**0,00**	**0,00**	**0,00**	**42,30**	**0,00**						
4 Agriculture	**0,0**		**192,86**	**33,09**	**0,00**	**0,00**	**1,08**	**0,00**						
A Enteric Fermentation	0,0		150,10	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		42,75	1,49	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	31,60	0,00	0,00	1,08	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-916,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -916,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,31	0,00						
6 Waste	**0,0**		**62,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		62,40	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**9184,6**	**0,0**	**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**						
International Bunkers	**4986,2**		**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**						
Aviation	1926,9		0,08	0,05	8,02	2,13	0,93	0,12						
Marine	3059,4		0,07	0,20	76,49	7,18	2,26	54,73						
CO2 Emissions from Biomass	**4198,3**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**52893,7**	**-916,0**	**278,49**	**34,92**	**276,61**	**635,69**	**163,06**	**182,81**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**51756,3**		**23,24**	**1,83**	**275,80**	**635,69**	**110,37**	**182,48**						
A Fuel Combustion	51516,3		10,81	1,82	274,50	601,59	102,47	182,48						
B Fugitive Emissions from Fuels	240,0		12,43	0,00	1,30	34,10	7,90	0,00						
2 Industrial Processes	**1005,5**		**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
3 Solvent and Other Product Use	**131,8**		**0,00**	**0,00**	**0,00**	**0,00**	**42,30**	**0,00**						
4 Agriculture	**0,0**		**192,86**	**33,09**	**0,00**	**0,00**	**1,08**	**0,00**						
5 Land-Use Change & Forestry		**(2) -916,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste	**0,0**		**62,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**9184,6**	**0,0**	**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**						
International Bunkers	**4986,2**		**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**						
Aviation	1926,9		0,08	0,05	8,02	2,13	0,93	0,12						
Marine	3059,4		0,07	0,20	76,49	7,18	2,26	54,73						
CO2 Emissions from Biomass	**4198,3**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**61040,7**	**-916,0**	**278,49**	**34,92**	**276,61**	**635,69**	**163,06**	**182,81**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
-1 Correction for electricity exchange		**6300,0**													
0 Correction for outside temperature variation		**1847,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**51756,3**		**23,24**	**1,83**	**275,80**	**635,69**	**110,37**	**182,48**						
A Fuel Combustion		51516,3		10,81	1,82	274,50	601,59	102,47	182,48						
B Fugitive Emissions from Fuels		240,0		12,43	0,00	1,30	34,10	7,90	0,00						
2 Industrial Processes		**1005,5**		**0,00**	**0,00**	**0,81**	**0,00**	**0,00**	**0,33**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
3 Solvent and Other Product Use		**131,8**		**0,00**	**0,00**	**0,00**	**0,00**	**42,30**	**0,00**						
4 Agriculture		**0,0**		**192,86**	**33,09**	**0,00**	**0,00**	**1,08**	**0,00**						
5 Land-Use Change & Forestry			**(2) -916,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste		**0,0**		**62,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**9184,6**	**0,0**	**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**						
International Bunkers		**4986,2**		**0,15**	**0,25**	**84,51**	**9,31**	**3,19**	**54,86**						
Aviation		1926,9		0,08	0,05	8,02	2,13	0,93	0,12						
Marine		3059,4		0,07	0,20	76,49	7,18	2,26	54,73						
CO2 Emissions from Biomass		**4198,3**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1990 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**51978**	**5849**	**10825**	**0**	**0**	**0**	**68651**	**100,0**
Table 1 Sheet 1	**Total Energy**	**51756**	**488**	**567**				**52812**	**76,9**
	A Fuel Combustion Activities (Sectoral Approach)	**51516**	**227**	**564**				**52308**	**76,2**
	1 Energy Industries	**26216**	**22**	**270**				**26508**	**38,6**
	a Public Electricity and Heat Production	24824	18	260				25102	36,6
	b Petroleum Refining	1392	5	9				1406	2,0
	c Manufacture of Solid Fuels and Other Energy Industries	0	0	0				0	0,0
	2 Manufacturing Industries and Construction	**5776**	**13**	**56**				**5845**	**8,5**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	5776	13	56				5845	8,5
Sheet 2	**3 Transport**	**10741**	**57**	**146**				**10944**	**15,9**
	a Civil Aviation	55	0	0				55	0,1
	b Road Transportation	9348	56	124				9528	13,9
	c Railways	298	0	3				302	0,4
	d Navigation	483	0	9				493	0,7
	e Pipeline Transport	557	1	9				567	0,8
	4 Other Sectors	**8664**	**134**	**96**				**8894**	**13,0**
	a Commercial/Institutional	1490	5	12				1508	2,2
	b Residential	4967	123	53				5142	7,5
	c Agriculture/Forestry/Fishing	2208	6	34				2248	3,3
	5 Other (please specify)	**119**	**0**	**0**				**119**	**0,2**
	B Fugitive Emissions from Fuels	**240**	**261**	**0**				**501**	**0,7**
	1 Solid Fuels	**0**	**69**	**0**				**69**	**0,1**
	a Coal Mining	0	69	0				69	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**240**	**192**	**0**				**432**	**0,6**
	a Oil	0	0	0				0	0,0
	b Natural Gas	0	177	0				177	0,3
	c Venting and Flaring	240	14	0				254	0,4

Table 2 Sheet 1	**Total Industrial Processes**	**1006**	**0**	**0**	**0**	**0**	**0**	**1006**	**1,5**
	A Mineral Products	**1006**	**0**	**0**	**0**	**0**	**0**	**1006**	**1,5**
	1 Cement Production	883	0	0	0	0	0	883	1,3
	2 Lime Production	123	0	0	0	0	0	123	0,2
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,0
	2 Foam Blowing	0	0	0	0	0	0	0	0,0
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	0	0	0,0
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**132**		**0**				**132**	**0,2**
	A Paint Application	79		0				79	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	8		0				8	0,0
	D Other (please specify)	44		0				44	0,1

Table 4 Sheet 1

	Total Agriculture		**4050**	**10258**				**14308**	**20,8**
	A Enteric Fermentation		**3152**	**0**				**3152**	**4,6**
	1 Cattle		2812	0				2812	4,1
	2 Buffalo		0	0				0	0,0
	3 Sheep		27	0				27	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		14	0				14	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		299	0				299	0,4
	9 Poultry		0	0				0	0,0
	10 Other (please specify)		0	0				0	0,0
	B Manure Management		**898**	**462**				**1360**	**2,0**
	1 Cattle		395	0				395	0,6
	2 Buffalo		0	0				0	0,0
	3 Sheep		1	0				1	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		1	0				1	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		493	0				493	0,7
	9 Poultry		14	0				14	0,0
Sheet 2	10 Anaerobic		0	0				0	0,0
	11 Liquid Systems		0	65				65	0,1
	12 Solid Storage and Dry Lot		0	397				397	0,6
	13 Other (please specify)		-6	0				-6	0,0
	C Rice Cultivation		**0**	**0**				**0**	**0,0**
	1 Irrigated		0	0				0	0,0
	2 Rainfed		0	0				0	0,0
	3 Deep Water		0	0				0	0,0
	4 Other (please specify)		0	0				0	0,0
	D Agricultural Soils		**0**	**9796**				**9796**	**14,3**
	E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
	F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
	1 Cereals		0	0				0	0,0
	2 Pulse		0	0				0	0,0
	3 Tuber and Root		0	0				0	0,0
	4 Sugar Cane		0	0				0	0,0
	5 Other (please specify)		0	0				0	0,0
	G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1	**Total Land-Use Change and Forestry**	**-916**	**0**	**0**				**-916**	**-1,3**
	A Changes in Forest and Other Woody Biomass Stocks	**-916**	**0**	**0**				**-916**	**-1,3**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-916	0	0				-916	-1,3
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1310**	**0**				**1310**	**1,9**
	A Solid Waste Disposal on Land	**0**	**1310**	**0**				**1310**	**1,9**
	1 Managed Waste Disposal on Land	0	1310	0				1310	1,9
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFC	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
2 Foam Blowing	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,00**	**0,00**	**0,00**	**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	0,00	0,00	0,00	0,00
2 Foam Blowing	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1990 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**60125**	**5849**	**10825**	**0**	**0**	**0**	**76798**	**100,0**
-1 Correction for electricity exchange		**6300**						**6300**	**8,2**
0 Correction for outside temperature variation		**1847**						**1847**	**2,4**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**51756**	**488**	**567**				**52812**	**68,8**
A Fuel Combustion		51516	227	564				52308	68,1
B Fugitive Emissions from Fuels		240	261	0				501	0,7
2 Industrial Processes		**1006**	**0**	**0**	**0**	**0**	**0**	**1006**	**1,3**
3 Solvent and Other Product Use		**132**		**0**				**132**	**0,2**
4 Agriculture			**4050**	**10258**				**14308**	**18,6**
5 Land-Use Change & Forestry		**-916**	**0**	**0**				**-916**	**-1,2**
6 Waste		**0**	**1310**	**0**				**1310**	**1,7**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**62207,6**	**25,40**	**2,25**	**322,85**	**664,09**	**111,68**	**241,39**
A Fuel Combustion Activities (Sectoral Approach)	**61713,0**	**11,67**	**2,24**	**320,17**	**619,97**	**103,98**	**241,39**
1 Energy Industries	**35142,4**	**1,29**	**1,15**	**135,29**	**9,39**	**1,39**	**188,45**
a Public Electricity and Heat Production	33654,4	1,06	1,12	130,97	8,94	1,24	182,17
b Petroleum Refining	1488,0	0,23	0,03	4,32	0,46	0,15	6,28
c Manufacture of Solid Fuels and Other Energy Industries	0,0	0,00	0,00	0,00	0,00	0,00	0,00
2 Manufacturing Industries and Construction	**6113,8**	**0,65**	**0,19**	**19,97**	**8,67**	**2,42**	**23,70**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6113,8	0,65	0,19	19,97	8,67	2,42	23,70

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**11245,0**	**2,85**	**0,58**	**124,74**	**489,87**	**86,38**	**15,00**
a Civil Aviation	47,5	0,00	0,00	0,20	0,03	0,02	0,00
b Road Transportation	9760,0	2,78	0,50	98,90	482,05	83,67	5,94
c Railways	303,0	0,02	0,01	4,39	1,36	0,74	0,38
d Navigation	582,6	0,01	0,04	10,53	1,37	0,43	7,97
e Pipeline Transport	551,8	0,04	0,03	10,73	5,07	1,52	0,70
4 Other Sectors	**8925,1**	**6,87**	**0,32**	**37,96**	**110,30**	**13,39**	**14,08**
a Commercial/Institutional	1424,9	0,26	0,03	1,19	3,79	0,28	1,49
b Residential	5203,8	6,32	0,17	4,95	88,59	9,04	7,12
c Agriculture/Forestry/Fishing	2296,4	0,29	0,11	31,82	17,91	4,08	5,47
5 Other (please specify)	**286,8**	**0,02**	**0,01**	**2,20**	**1,75**	**0,39**	**0,16**
B Fugitive Emissions from Fuels	**494,6**	**13,73**	**0,01**	**2,68**	**44,11**	**7,70**	**0,00**
1 Solid Fuels	**0,0**	**3,87**	**0,00**	**0,00**	**42,37**	**0,00**	**0,00**
a Coal Mining	0,0	3,87	0,00	0,00	42,37	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**494,6**	**9,85**	**0,01**	**2,68**	**1,74**	**7,70**	**0,00**
a Oil	0,0	0,00	0,00	0,00	0,00	3,63	0,00
b Natural Gas	0,0	8,45	0,00	0,00	0,00	3,31	0,00
c Venting and Flaring	494,6	1,40	0,01	2,68	1,74	0,76	0,00

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

132,71	0,01	0,01	1,18	0,54	0,17	0,04

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**9006,1**	**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**
International Bunkers	**4507,4**	**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**
Aviation	1783,6	0,08	0,05	7,42	1,92	0,85	0,11
Marine	2723,8	0,06	0,17	66,65	6,39	2,01	46,33
CO2 Emissions from Biomass	**4498,6**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1178,1**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
A Mineral Products	**1178,1**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1087,3	0	0	0	0	0	0		0		0		0
2 Lime Production	90,8	0	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0000**	**0,0000**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0000	0,0000
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0		0,0000	0,0000	0,0000		0
2 Foam Blowing	0	0	0	0	0	0	0	0,0030	0,0003		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0000	0,0000
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,0030	0,0003	1300	HFC-402a	0,0000	0,0000	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0000	0,0000	140	HFC-404a	0,0000	0,0000	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0000	0,0000	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**130,5**	**0**	**41,87**
A Paint Application	78,5	0	25,19
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	8,1	0	2,60
D Other (please specify)	43,9	0	14,09

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**191,63**	**32,35**	**0**	**0**	**1,07**
A Enteric Fermentation	**148,64**	**0**	**0**	**0**	**0**
1 Cattle	131,89	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,51	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,58	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	14,67	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**42,99**	**1,51**	**0**	**0**	**0**
1 Cattle	18,54	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,09	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,04	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	24,16	0	0	0	0
9 Poultry	0,62	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,22	0	0	0
12 Solid Storage and Dry Lot	0	1,3	0	0	0
13 Other (please specify)	-0,46	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**30,83**	**0**	**0**	**1,07**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-920,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-920,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -920,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (4 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**63,70**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**63,70**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	63,70	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**63516,2**	**-920,0**	**280,74**	**34,60**	**322,85**	**664,09**	**163,93**	**241,39**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Energy	**62207,6**		**25,40**	**2,25**	**322,85**	**664,09**	**111,68**	**241,39**						
A Fuel Combustion (Sectoral Approach)	61713,0		11,67	2,24	320,17	619,97	103,98	241,39						
1 Energy Industries	35142,4		1,29	1,15	135,29	9,39	1,39	188,45						
2 Manufacturing Industries and Construction	6113,8		0,65	0,19	19,97	8,67	2,42	23,70						
3 Transport	11245,0		2,85	0,58	124,74	489,87	86,38	15,00						
4 Other Sectors	8925,1		6,87	0,32	37,96	110,30	13,39	14,08						
5 Other (please specify)	286,8		0,02	0,01	2,20	1,75	0,39	0,16						
B Fugitive Emissions from Fuels	494,6		13,73	0,01	2,68	44,11	7,70	0,00						
1 Solid Fuels	0,0		3,87	0,00	0,00	42,37	0,00	0,00						
2 Oil and Natural Gas	494,6		9,85	0,01	2,68	1,74	7,70	0,00						
2 Industrial Processes	**1178,1**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
A Mineral Products	1178,1		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0000	0,0000
D Other Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,0030	0,0003	0,0000	0,0000	0,0000	0,0000
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**130,5**		**0,00**	**0,00**	**0,00**	**0,00**	**41,87**	**0,00**						
4 Agriculture	**0,0**		**191,63**	**32,35**	**0,00**	**0,00**	**1,07**	**0,00**						
A Enteric Fermentation	0,0		148,64	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		42,99	1,51	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	30,83	0,00	0,00	1,07	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-920,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -920,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,31	0,00						
6 Waste	**0,0**		**63,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		63,70	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (4 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**9006,1**	**0,0**	**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**						
International Bunkers	**4507,4**		**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**						
Aviation	1783,6		0,08	0,05	7,42	1,92	0,85	0,11						
Marine	2723,8		0,06	0,17	66,65	6,39	2,01	46,33						
CO2 Emissions from Biomass	**4498,6**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**63516,2**	**-920,0**	**280,74**	**34,60**	**322,85**	**664,09**	**163,93**	**241,39**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**62207,6**		**25,40**	**2,25**	**322,85**	**664,09**	**111,68**	**241,39**						
A Fuel Combustion	61713,0		11,67	2,24	320,17	619,97	103,98	241,39						
B Fugitive Emissions from Fuels	494,6		13,73	0,01	2,68	44,11	7,70	0,00						
2 Industrial Processes	**1178,1**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
3 Solvent and Other Product Use	**130,5**		**0,00**	**0,00**	**0,00**	**0,00**	**41,87**	**0,00**						
4 Agriculture	**0,0**		**191,63**	**32,35**	**0,00**	**0,00**	**1,07**	**0,00**						
5 Land-Use Change & Forestry		**(2) -920,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste	**0,0**		**63,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**9006,1**	**0,0**	**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**						
International Bunkers	**4507,4**		**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**						
Aviation	1783,6		0,08	0,05	7,42	1,92	0,85	0,11						
Marine	2723,8		0,06	0,17	66,65	6,39	2,01	46,33						
CO2 Emissions from Biomass	**4498,6**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (4 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**62266,2**	**-920,0**	**280,74**	**34,60**	**322,85**	**664,09**	**163,93**	**241,39**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
-1 Correction for electricity exchange		**-1558,0**													
0 Correction for outside temperature variation		**308,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**62207,6**		**25,40**	**2,25**	**322,85**	**664,09**	**111,68**	**241,39**						
A Fuel Combustion		61713,0		11,67	2,24	320,17	619,97	103,98	241,39						
B Fugitive Emissions from Fuels		494,6		13,73	0,01	2,68	44,11	7,70	0,00						
2 Industrial Processes		**1178,1**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0030**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
3 Solvent and Other Product Use		**130,5**		**0,00**	**0,00**	**0,00**	**0,00**	**41,87**	**0,00**						
4 Agriculture		**0,0**		**191,63**	**32,35**	**0,00**	**0,00**	**1,07**	**0,00**						
5 Land-Use Change & Forestry			**(2) -920,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste		**0,0**		**63,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**9006,1**	**0,0**	**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**						
International Bunkers		**4507,4**		**0,14**	**0,22**	**74,07**	**8,31**	**2,86**	**46,44**						
Aviation		1783,6		0,08	0,05	7,42	1,92	0,85	0,11						
Marine		2723,8		0,06	0,17	66,65	6,39	2,01	46,33						
CO2 Emissions from Biomass		**4498,6**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (4 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1991 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**62596**	**5895**	**10726**	**0**	**0**	**0**	**79218**	**100,0**
Table 1 Sheet 1	**Total Energy**	**62208**	**533**	**698**				**63439**	**80,1**
	A Fuel Combustion Activities (Sectoral Approach)	**61713**	**245**	**694**				**62653**	**79,1**
	1 Energy Industries	**35142**	**27**	**357**				**35526**	**44,8**
	a Public Electricity and Heat Production	33654	22	347				34024	42,9
	b Petroleum Refining	1488	5	9				1502	1,9
	c Manufacture of Solid Fuels and Other Energy Industries	0	0	0				0	0,0
	2 Manufacturing Industries and Construction	**6114**	**14**	**59**				**6186**	**7,8**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6114	14	59				6186	7,8
Sheet 2	**3 Transport**	**11245**	**60**	**180**				**11485**	**14,5**
	a Civil Aviation	48	0	0				48	0,1
	b Road Transportation	9760	58	155				9973	12,6
	c Railways	303	0	3				307	0,4
	d Navigation	583	0	12				595	0,8
	e Pipeline Transport	552	1	9				562	0,7
	4 Other Sectors	**8925**	**144**	**99**				**9169**	**11,6**
	a Commercial/Institutional	1425	5	9				1440	1,8
	b Residential	5204	133	53				5389	6,8
	c Agriculture/Forestry/Fishing	2296	6	34				2337	2,9
	5 Other (please specify)	**287**	**0**	**3**				**290**	**0,4**
	B Fugitive Emissions from Fuels	**495**	**288**	**3**				**786**	**1,0**
	1 Solid Fuels	**0**	**81**	**0**				**81**	**0,1**
	a Coal Mining	0	81	0				81	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**495**	**207**	**3**				**705**	**0,9**
	a Oil	0	0	0				0	0,0
	b Natural Gas	0	177	0				177	0,2
	c Venting and Flaring	495	29	3				527	0,7

Table 2 Sheet 1	**Total Industrial Processes**	**1178**	**0**	**0**	**0**	**0**	**0**	**1178**	**1,5**
	A Mineral Products	**1178**	**0**	**0**	**0**	**0**	**0**	**1178**	**1,5**
	1 Cement Production	1087	0	0	0	0	0	1087	1,4
	2 Lime Production	91	0	0	0	0	0	91	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,0
	2 Foam Blowing	0	0	0	0	0	0	0	0,0
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	0	0	0,0
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**131**		**0**				**131**	**0,2**
	A Paint Application	79		0				79	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	8		0				8	0,0
	D Other (please specify)	44		0				44	0,1

Table 4 Sheet 1

	Total Agriculture		**4024**	**10029**				**14053**	**17,7**
	A Enteric Fermentation		**3121**	**0**				**3121**	**3,9**
	1 Cattle		2770	0				2770	3,5
	2 Buffalo		0	0				0	0,0
	3 Sheep		32	0				32	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		12	0				12	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		308	0				308	0,4
	9 Poultry		0	0				0	0,0
	10 Other (please specify)		0	0				0	0,0
	B Manure Management		**903**	**468**				**1371**	**1,7**
	1 Cattle		389	0				389	0,5
	2 Buffalo		0	0				0	0,0
	3 Sheep		2	0				2	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		1	0				1	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		507	0				507	0,6
	9 Poultry		13	0				13	0,0
Sheet 2	10 Anaerobic		0	0				0	0,0
	11 Liquid Systems		0	68				68	0,1
	12 Solid Storage and Dry Lot		0	403				403	0,5
	13 Other (please specify)		-10	0				-10	0,0
	C Rice Cultivation		**0**	**0**				**0**	**0,0**
	1 Irrigated		0	0				0	0,0
	2 Rainfed		0	0				0	0,0
	3 Deep Water		0	0				0	0,0
	4 Other (please specify)		0	0				0	0,0
	D Agricultural Soils		**0**	**9557**				**9557**	**12,1**
	E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
	F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
	1 Cereals		0	0				0	0,0
	2 Pulse		0	0				0	0,0
	3 Tuber and Root		0	0				0	0,0
	4 Sugar Cane		0	0				0	0,0
	5 Other (please specify)		0	0				0	0,0
	G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1

	Total Land-Use Change and Forestry	**-920**	**0**	**0**				**-920**	**-1,2**
	A Changes in Forest and Other Woody Biomass Stocks	**-920**	**0**	**0**				**-920**	**-1,2**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-920	0	0				-920	-1,2
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1338**	**0**				**1338**	**1,7**
	A Solid Waste Disposal on Land	**0**	**1338**	**0**				**1338**	**1,7**
	1 Managed Waste Disposal on Land	0	1338	0				1338	1,7
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFC	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,0003**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
2 Foam Blowing	0,0003	0,0003	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,39**	**0,39**	**0,00**	**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	0,00	0,00	0,00	0,00
2 Foam Blowing	0,39	0,39	0,00	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1991 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**61346**	**5895**	**10726**	**0**	**0**	**0**	**77968**	**100,0**
-1 Correction for electricity exchange		**-1558**						**-1558**	**-2,0**
0 Correction for outside temperature variation		**308**						**308**	**0,4**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**62208**	**533**	**698**				**63439**	**81,4**
A Fuel Combustion		61713	245	694				62653	80,4
B Fugitive Emissions from Fuels		495	288	3				786	1,0
2 Industrial Processes		**1178**	**0**	**0**	**0**	**0**	**0**	**1178**	**1,5**
3 Solvent and Other Product Use		**131**		**0**				**131**	**0,2**
4 Agriculture			**4024**	**10029**				**14053**	**18,0**
5 Land-Use Change & Forestry		**-920**	**0**	**0**				**-920**	**-1,2**
6 Waste		**0**	**1338**	**0**				**1338**	**1,7**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,0003**	**0,0003**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**0,39**	**0,39**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**56761,1**	**25,59**	**2,17**	**278,55**	**653,52**	**109,35**	**188,41**
A Fuel Combustion Activities (Sectoral Approach)	**56250,3**	**11,75**	**2,16**	**275,78**	**610,86**	**102,35**	**188,41**
1 Energy Industries	**29777,9**	**1,24**	**0,99**	**93,01**	**9,02**	**1,36**	**143,69**
a Public Electricity and Heat Production	28180,2	0,99	0,96	88,20	8,52	1,19	136,30
b Petroleum Refining	1597,7	0,25	0,03	4,81	0,50	0,17	7,39
c Manufacture of Solid Fuels and Other Energy Industries	0,0	0,00	0,00	0,00	0,00	0,00	0,00
2 Manufacturing Industries and Construction	**6217,8**	**0,64**	**0,18**	**20,11**	**8,50**	**2,40**	**22,13**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6217,8	0,64	0,18	20,11	8,50	2,40	22,13

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**11373,4**	**2,91**	**0,67**	**123,54**	**480,05**	**84,86**	**9,47**
a Civil Aviation	42,3	0,00	0,00	0,17	0,02	0,02	0,00
b Road Transportation	9932,1	2,83	0,60	98,47	472,27	82,15	3,94
c Railways	320,0	0,02	0,01	4,64	1,44	0,79	0,41
d Navigation	525,8	0,01	0,03	9,50	1,23	0,39	4,69
e Pipeline Transport	553,4	0,04	0,03	10,76	5,08	1,52	0,44
4 Other Sectors	**8740,4**	**6,95**	**0,31**	**37,91**	**112,22**	**13,50**	**13,05**
a Commercial/Institutional	1403,9	0,26	0,03	1,17	3,79	0,28	1,34
b Residential	5132,8	6,42	0,17	4,88	90,87	9,19	6,73
c Agriculture/Forestry/Fishing	2203,8	0,28	0,11	31,85	17,56	4,03	4,98
5 Other (please specify)	**140,8**	**0,01**	**0,00**	**1,22**	**1,06**	**0,23**	**0,06**
B Fugitive Emissions from Fuels	**510,8**	**13,84**	**0,01**	**2,76**	**42,66**	**7,00**	**0,00**
1 Solid Fuels	**0,0**	**3,94**	**0,00**	**0,00**	**40,87**	**0,00**	**0,00**
a Coal Mining	0,0	3,94	0,00	0,00	40,87	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**510,8**	**9,90**	**0,01**	**2,76**	**1,80**	**7,00**	**0,00**
a Oil	0,0	0,00	0,00	0,00	0,00	2,91	0,00
b Natural Gas	0,0	8,45	0,00	0,00	0,00	3,31	0,00
c Venting and Flaring	510,8	1,45	0,01	2,76	1,80	0,78	0,00

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

286,02	0,09	0,02	2,88	15,30	2,64	0,04

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**9529,7**	**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**
International Bunkers	**4677,2**	**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**
Aviation	1844,9	0,08	0,05	7,67	1,95	0,87	0,12
Marine	2832,4	0,07	0,18	66,77	6,64	2,09	37,51
CO2 Emissions from Biomass	**4852,5**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1300,5**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
A Mineral Products	**1300,5**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1194,5	0	0	0	0	0	0		0		0		0
2 Lime Production	106,0	0	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0013**	**0,0013**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0013	0,0013
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0137**	**0,0035**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,0190	0,0005	0,0000	0,0000		0
2 Foam Blowing	0	0	0	0	0	0	0	0,0050	0,0051		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0137	0,0035
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,0200	0,0026	1300	HFC-402a	0,0000	0,0000	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0040	0,0030	140	HFC-404a	0,0000	0,0000	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0000	0,0000	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**129,16**	**0**	**41,44**
A Paint Application	77,82	0	24,97
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,94	0	2,55
D Other (please specify)	43,4	0	13,93

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**190,38**	**30,32**	**0**	**0**	**1,05**
A Enteric Fermentation	**146,36**	**0**	**0**	**0**	**0**
1 Cattle	128,72	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,46	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,50	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	15,68	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**44,02**	**1,55**	**0**	**0**	**0**
1 Cattle	17,88	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,08	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,03	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	25,86	0	0	0	0
9 Poultry	0,72	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,22	0	0	0
12 Solid Storage and Dry Lot	0	1,33	0	0	0
13 Other (please specify)	-0,56	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**28,77**	**0**	**0**	**1,05**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-923,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-923,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -923,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (7 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**64,80**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**64,80**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	64,80	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**58190,7**	**-923,0**	**280,78**	**32,49**	**278,55**	**653,52**	**161,16**	**188,41**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
1 Energy	**56761,1**		**25,59**	**2,17**	**278,55**	**653,52**	**109,35**	**188,41**						
A Fuel Combustion (Sectoral Approach)	56250,3		11,75	2,16	275,78	610,86	102,35	188,41						
1 Energy Industries	29777,9		1,24	0,99	93,01	9,02	1,36	143,69						
2 Manufacturing Industries and Construction	6217,8		0,64	0,18	20,11	8,50	2,40	22,13						
3 Transport	11373,4		2,91	0,67	123,54	480,05	84,86	9,47						
4 Other Sectors	8740,4		6,95	0,31	37,91	112,22	13,50	13,05						
5 Other (please specify)	140,8		0,01	0,00	1,22	1,06	0,23	0,06						
B Fugitive Emissions from Fuels	510,8		13,84	0,01	2,76	42,66	7,00	0,00						
1 Solid Fuels	0,0		3,94	0,00	0,00	40,87	0,00	0,00						
2 Oil and Natural Gas	510,8		9,90	0,01	2,76	1,80	7,00	0,00						
2 Industrial Processes	**1300,5**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
A Mineral Products	1300,5		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0013	0,0013
D Other Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,0240	0,0057	0,0000	0,0000	0,0137	0,0035
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**129,2**		**0,00**	**0,00**	**0,00**	**0,00**	**41,44**	**0,00**						
4 Agriculture	**0,0**		**190,38**	**30,32**	**0,00**	**0,00**	**1,05**	**0,00**						
A Enteric Fermentation	0,0		146,36	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		44,02	1,55	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	28,77	0,00	0,00	1,05	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-923,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -923,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,31	0,00						
6 Waste	**0,0**		**64,80**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		64,80	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (7 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**9529,7**	**0,0**	**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**						
International Bunkers	**4677,2**		**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**						
Aviation	1844,9		0,08	0,05	7,67	1,95	0,87	0,12						
Marine	2832,4		0,07	0,18	66,77	6,64	2,09	37,51						
CO2 Emissions from Biomass	**4852,5**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**58190,7**	**-923,0**	**280,78**	**32,49**	**278,55**	**653,52**	**161,16**	**188,41**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**56761,1**		**25,59**	**2,17**	**278,55**	**653,52**	**109,35**	**188,41**						
A Fuel Combustion	56250,3		11,75	2,16	275,78	610,86	102,35	188,41						
B Fugitive Emissions from Fuels	510,8		13,84	0,01	2,76	42,66	7,00	0,00						
2 Industrial Processes	**1300,5**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
3 Solvent and Other Product Use	**129,2**		**0,00**	**0,00**	**0,00**	**0,00**	**41,44**	**0,00**						
4 Agriculture	**0,0**		**190,38**	**30,32**	**0,00**	**0,00**	**1,05**	**0,00**						
5 Land-Use Change & Forestry		**(2) -923,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste	**0,0**		**64,80**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**9529,7**	**0,0**	**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**						
International Bunkers	**4677,2**		**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**						
Aviation	1844,9		0,08	0,05	7,67	1,95	0,87	0,12						
Marine	2832,4		0,07	0,18	66,77	6,64	2,09	37,51						
CO2 Emissions from Biomass	**4852,5**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (7 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**62364,7**	**-923,0**	**280,78**	**32,49**	**278,55**	**653,52**	**161,16**	**188,41**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
-1 Correction for electricity exchange		**2939,0**													
0 Correction for outside temperature variation		**1235,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**56761,1**		**25,59**	**2,17**	**278,55**	**653,52**	**109,35**	**188,41**						
A Fuel Combustion		56250,3		11,75	2,16	275,78	610,86	102,35	188,41						
B Fugitive Emissions from Fuels		510,8		13,84	0,01	2,76	42,66	7,00	0,00						
2 Industrial Processes		**1300,5**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0240**	**0,0057**	**0,0000**	**0,0000**	**0,0150**	**0,0048**
3 Solvent and Other Product Use		**129,2**		**0,00**	**0,00**	**0,00**	**0,00**	**41,44**	**0,00**						
4 Agriculture		**0,0**		**190,38**	**30,32**	**0,00**	**0,00**	**1,05**	**0,00**						
5 Land-Use Change & Forestry			**(2) -923,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste		**0,0**		**64,80**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**9529,7**	**0,0**	**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**						
International Bunkers		**4677,2**		**0,14**	**0,23**	**74,44**	**8,59**	**2,96**	**37,62**						
Aviation		1844,9		0,08	0,05	7,67	1,95	0,87	0,12						
Marine		2832,4		0,07	0,18	66,77	6,64	2,09	37,51						
CO2 Emissions from Biomass		**4852,5**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (7 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1992 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**57268**	**5896**	**10072**	**4**	**0**	**115**	**73354**	**100,0**
Table 1 Sheet 1	**Total Energy**	**56761**	**537**	**673**				**57971**	**79,0**
	A Fuel Combustion Activities (Sectoral Approach)	**56250**	**247**	**670**				**57167**	**77,9**
	1 Energy Industries	**29778**	**26**	**307**				**30111**	**41,0**
	a Public Electricity and Heat Production	28180	21	298				28499	38,9
	b Petroleum Refining	1598	5	9				1612	2,2
	c Manufacture of Solid Fuels and Other Energy Industries	0	0	0				0	0,0
	2 Manufacturing Industries and Construction	**6218**	**13**	**56**				**6287**	**8,6**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6218	13	56				6287	8,6
Sheet 2	**3 Transport**	**11373**	**61**	**208**				**11642**	**15,9**
	a Civil Aviation	42	0	0				42	0,1
	b Road Transportation	9932	59	186				10178	13,9
	c Railways	320	0	3				324	0,4
	d Navigation	526	0	9				535	0,7
	e Pipeline Transport	553	1	9				564	0,8
	4 Other Sectors	**8740**	**146**	**96**				**8982**	**12,2**
	a Commercial/Institutional	1404	5	9				1419	1,9
	b Residential	5133	135	53				5320	7,3
	c Agriculture/Forestry/Fishing	2204	6	34				2244	3,1
	5 Other (please specify)	**141**	**0**	**0**				**141**	**0,2**
	B Fugitive Emissions from Fuels	**511**	**291**	**3**				**805**	**1,1**
	1 Solid Fuels	**0**	**83**	**0**				**83**	**0,1**
	a Coal Mining	0	83	0				83	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**511**	**208**	**3**				**722**	**1,0**
	a Oil	0	0	0				0	0,0
	b Natural Gas	0	177	0				177	0,2
	c Venting and Flaring	511	30	3				544	0,7

Table 2 Sheet 1	**Total Industrial Processes**	**1300**	**0**	**0**	**4**	**0**	**115**	**1419**	**1,9**
	A Mineral Products	**1300**	**0**	**0**	**0**	**0**	**0**	**1300**	**1,8**
	1 Cement Production	1194	0	0	0	0	0	1194	1,6
	2 Lime Production	106	0	0	0	0	0	106	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**31**	**31**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	31	31	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**4**	**0**	**84**	**87**	**0,1**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	1	0	0	1	0,0
	2 Foam Blowing	0	0	0	3	0	0	3	0,0
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	84	84	0,1
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**129**		**0**				**129**	**0,2**
	A Paint Application	78		0				78	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	8		0				8	0,0
	D Other (please specify)	43		0				43	0,1

Table 4 Sheet 1

Total Agriculture		**3998**	**9399**				**13397**	**18,3**
A Enteric Fermentation		**3074**	**0**				**3074**	**4,2**
1 Cattle		2703	0				2703	3,7
2 Buffalo		0	0				0	0,0
3 Sheep		31	0				31	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		11	0				11	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		329	0				329	0,4
9 Poultry		0	0				0	0,0
10 Other (please specify)		0	0				0	0,0
B Manure Management		**924**	**481**				**1405**	**1,9**
1 Cattle		375	0				375	0,5
2 Buffalo		0	0				0	0,0
3 Sheep		2	0				2	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		1	0				1	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		543	0				543	0,7
9 Poultry		15	0				15	0,0

Sheet 2

10 Anaerobic		0	0				0	0,0
11 Liquid Systems		0	68				68	0,1
12 Solid Storage and Dry Lot		0	412				412	0,6
13 Other (please specify)		-12	0				-12	0,0
C Rice Cultivation		**0**	**0**				**0**	**0,0**
1 Irrigated		0	0				0	0,0
2 Rainfed		0	0				0	0,0
3 Deep Water		0	0				0	0,0
4 Other (please specify)		0	0				0	0,0
D Agricultural Soils		**0**	**8919**				**8919**	**12,2**
E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
1 Cereals		0	0				0	0,0
2 Pulse		0	0				0	0,0
3 Tuber and Root		0	0				0	0,0
4 Sugar Cane		0	0				0	0,0
5 Other (please specify)		0	0				0	0,0
G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1	**Total Land-Use Change and Forestry**	**-923**	**0**	**0**				**-923**	**-1,3**
	A Changes in Forest and Other Woody Biomass Stocks	**-923**	**0**	**0**				**-923**	**-1,3**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-923	0	0				-923	-1,3
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1361**	**0**				**1361**	**1,9**
	A Solid Waste Disposal on Land	**0**	**1361**	**0**				**1361**	**1,9**
	1 Managed Waste Disposal on Land	0	1361	0				1361	1,9
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFC	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,0057**	**0,0026**	**0,0030**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0005	0,0005	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
2 Foam Blowing	0,0051	0,0021	0,0030	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**3,82**	**3,40**	**0,42**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 Refrigeration and Air Conditioning Equipment	0,63	0,62	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2 Foam Blowing	3,20	2,78	0,42	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1992 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**61442**	**5896**	**10072**	**4**	**0**	**115**	**77528**	**100,0**
-1 Correction for electricity exchange		**2939**						**2939**	**3,8**
0 Correction for outside temperature variation		**1235**						**1235**	**1,6**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**56761**	**537**	**673**				**57971**	**74,8**
A Fuel Combustion		56250	247	670				57167	73,7
B Fugitive Emissions from Fuels		511	291	3				805	1,0
2 Industrial Processes		**1300**	**0**	**0**	**4**	**0**	**115**	**1419**	**1,8**
3 Solvent and Other Product Use		**129**		**0**				**129**	**0,2**
4 Agriculture			**3998**	**9399**				**13397**	**17,3**
5 Land-Use Change & Forestry		**-923**	**0**	**0**				**-923**	**-1,2**
6 Waste		**0**	**1361**	**0**				**1361**	**1,8**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,0057**	**0,0026**	**0,0030**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**3,82**	**3,40**	**0,42**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**58483,9**	**26,13**	**2,30**	**279,36**	**632,96**	**106,53**	**153,78**
A Fuel Combustion Activities (Sectoral Approach)	**58039,0**	**11,69**	**2,29**	**276,95**	**596,34**	**99,46**	**153,78**
1 Energy Industries	**31267,9**	**1,26**	**1,04**	**97,25**	**8,91**	**1,38**	**112,77**
a Public Electricity and Heat Production	29658,7	1,00	1,01	92,40	8,41	1,21	105,18
b Petroleum Refining	1609,1	0,25	0,03	4,85	0,50	0,17	7,59
c Manufacture of Solid Fuels and Other Energy Industries	0,0	0,00	0,00	0,00	0,00	0,00	0,00
2 Manufacturing Industries and Construction	**6167,6**	**0,66**	**0,18**	**19,90**	**8,44**	**2,39**	**20,83**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6167,6	0,66	0,18	19,90	8,44	2,39	20,83

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**11627,8**	**2,98**	**0,76**	**123,00**	**466,93**	**82,39**	**7,53**
a Civil Aviation	108,0	0,00	0,00	0,44	0,06	0,04	0,01
b Road Transportation	10054,1	2,90	0,68	96,50	458,89	79,57	1,75
c Railways	331,5	0,03	0,01	4,81	1,49	0,81	0,10
d Navigation	574,6	0,01	0,04	10,37	1,35	0,42	5,50
e Pipeline Transport	559,6	0,04	0,03	10,88	5,14	1,54	0,17
4 Other Sectors	**8738,5**	**6,78**	**0,30**	**35,21**	**111,04**	**13,05**	**12,62**
a Commercial/Institutional	1420,8	0,26	0,03	1,23	3,80	0,29	1,33
b Residential	5283,1	6,26	0,17	4,99	90,72	8,95	6,58
c Agriculture/Forestry/Fishing	2034,6	0,26	0,10	28,99	16,52	3,82	4,71
5 Other (please specify)	**237,2**	**0,01**	**0,01**	**1,59**	**1,02**	**0,25**	**0,03**
B Fugitive Emissions from Fuels	**444,9**	**14,45**	**0,01**	**2,41**	**36,61**	**7,07**	**0,00**
1 Solid Fuels	**0,0**	**4,74**	**0,00**	**0,00**	**35,05**	**0,00**	**0,00**
a Coal Mining	0,0	4,74	0,00	0,00	35,05	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**444,9**	**9,71**	**0,01**	**2,41**	**1,56**	**7,07**	**0,00**
a Oil	0,0	0,00	0,00	0,00	0,00	3,07	0,00
b Natural Gas	0,0	8,45	0,00	0,00	0,00	3,31	0,00
c Venting and Flaring	444,9	1,26	0,01	2,41	1,56	0,68	0,00

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

452,61	0,17	0,03	4,48	28,45	4,83	0,05

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**11037,5**	**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**
International Bunkers	**6040,7**	**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**
Aviation	1741,4	0,07	0,05	7,24	1,83	0,82	0,11
Marine	4299,4	0,10	0,27	105,17	10,09	3,17	66,06
CO2 Emissions from Biomass	**4996,7**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1311,0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
A Mineral Products	**1311,0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1205,2	0	0	0	0	0	0		0		0		0
2 Lime Production	105,8	0	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0015**	**0,0015**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0015	0,0015
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0155**	**0,0041**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,0990	0,0042	0,0000	0,0000		0
2 Foam Blowing	0	0	0	0	0	0	0	0,2440	0,0965		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0155	0,0041
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,3110	0,0705	1300	HFC-402a	0,0000	0,0000	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0320	0,0302	140	HFC-404a	0,0000	0,0000	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0000	0,0000	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**133,27**	**0**	**42,76**
A Paint Application	77,13	0	24,75
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,79	0	2,50
D Other (please specify)	48,36	0	15,51

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**194,52**	**30,6**	**0**	**0**	**1,02**
A Enteric Fermentation	**148,06**	**0**	**0**	**0**	**0**
1 Cattle	129,08	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,26	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,37	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	17,35	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**46,46**	**1,6**	**0**	**0**	**0**
1 Cattle	17,94	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,07	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,02	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	28,35	0	0	0	0
9 Poultry	0,74	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,23	0	0	0
12 Solid Storage and Dry Lot	0	1,37	0	0	0
13 Other (please specify)	-0,67	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**29**	**0**	**0**	**1,02**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-927,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-927,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -927,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (11 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**64,70**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**64,70**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	64,70	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**59928,1**	**-927,0**	**285,35**	**32,90**	**279,36**	**632,96**	**159,62**	**153,78**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
1 Energy	**58483,9**		**26,13**	**2,30**	**279,36**	**632,96**	**106,53**	**153,78**						
A Fuel Combustion (Sectoral Approach)	58039,0		11,69	2,29	276,95	596,34	99,46	153,78						
1 Energy Industries	31267,9		1,26	1,04	97,25	8,91	1,38	112,77						
2 Manufacturing Industries and Construction	6167,6		0,66	0,18	19,90	8,44	2,39	20,83						
3 Transport	11627,8		2,98	0,76	123,00	466,93	82,39	7,53						
4 Other Sectors	8738,5		6,78	0,30	35,21	111,04	13,05	12,62						
5 Other (please specify)	237,2		0,01	0,01	1,59	1,02	0,25	0,03						
B Fugitive Emissions from Fuels	444,9		14,45	0,01	2,41	36,61	7,07	0,00						
1 Solid Fuels	0,0		4,74	0,00	0,00	35,05	0,00	0,00						
2 Oil and Natural Gas	444,9		9,71	0,01	2,41	1,56	7,07	0,00						
2 Industrial Processes	**1311,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
A Mineral Products	1311,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0015	0,0015
D Other Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,3430	0,1008	0,0000	0,0000	0,0155	0,0041
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**133,3**		**0,00**	**0,00**	**0,00**	**0,00**	**42,76**	**0,00**						
4 Agriculture	**0,0**		**194,52**	**30,60**	**0,00**	**0,00**	**1,02**	**0,00**						
A Enteric Fermentation	0,0		148,06	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		46,46	1,60	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	29,00	0,00	0,00	1,02	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-927,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -927,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,31	0,00						
6 Waste	**0,0**		**64,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		64,70	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (11 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**11037,5**	**0,0**	**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**						
International Bunkers	**6040,7**		**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**						
Aviation	1741,4		0,07	0,05	7,24	1,83	0,82	0,11						
Marine	4299,4		0,10	0,27	105,17	10,09	3,17	66,06						
CO2 Emissions from Biomass	**4996,7**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**59928,1**	**-927,0**	**285,35**	**32,90**	**279,36**	**632,96**	**159,62**	**153,78**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**58483,9**		**26,13**	**2,30**	**279,36**	**632,96**	**106,53**	**153,78**						
A Fuel Combustion	58039,0		11,69	2,29	276,95	596,34	99,46	153,78						
B Fugitive Emissions from Fuels	444,9		14,45	0,01	2,41	36,61	7,07	0,00						
2 Industrial Processes	**1311,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
3 Solvent and Other Product Use	**133,3**		**0,00**	**0,00**	**0,00**	**0,00**	**42,76**	**0,00**						
4 Agriculture	**0,0**		**194,52**	**30,60**	**0,00**	**0,00**	**1,02**	**0,00**						
5 Land-Use Change & Forestry		**(2) -927,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste	**0,0**		**64,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**11037,5**	**0,0**	**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**						
International Bunkers	**6040,7**		**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**						
Aviation	1741,4		0,07	0,05	7,24	1,83	0,82	0,11						
Marine	4299,4		0,10	0,27	105,17	10,09	3,17	66,06						
CO2 Emissions from Biomass	**4996,7**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (11 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**60771,1**	**-927,0**	**285,35**	**32,90**	**279,36**	**632,96**	**159,62**	**153,78**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
-1 Correction for electricity exchange		**1068,0**													
0 Correction for outside temperature variation		**-225,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**58483,9**		**26,13**	**2,30**	**279,36**	**632,96**	**106,53**	**153,78**						
A Fuel Combustion		58039,0		11,69	2,29	276,95	596,34	99,46	153,78						
B Fugitive Emissions from Fuels		444,9		14,45	0,01	2,41	36,61	7,07	0,00						
2 Industrial Processes		**1311,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,3430**	**0,1008**	**0,0000**	**0,0000**	**0,0170**	**0,0056**
3 Solvent and Other Product Use		**133,3**		**0,00**	**0,00**	**0,00**	**0,00**	**42,76**	**0,00**						
4 Agriculture		**0,0**		**194,52**	**30,60**	**0,00**	**0,00**	**1,02**	**0,00**						
5 Land-Use Change & Forestry			**(2) -927,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste		**0,0**		**64,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**11037,5**	**0,0**	**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**						
International Bunkers		**6040,7**		**0,17**	**0,32**	**112,40**	**11,91**	**4,00**	**66,17**						
Aviation		1741,4		0,07	0,05	7,24	1,83	0,82	0,11						
Marine		4299,4		0,10	0,27	105,17	10,09	3,17	66,06						
CO2 Emissions from Biomass		**4996,7**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (11 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1993 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**59001**	**5992**	**10199**	**96**	**0**	**133**	**75421**	**100,0**
Table 1 Sheet 1	**Total Energy**	**58484**	**549**	**713**				**59746**	**79,2**
	A Fuel Combustion Activities (Sectoral Approach)	**58039**	**245**	**710**				**58994**	**78,2**
	1 Energy Industries	**31268**	**26**	**322**				**31617**	**41,9**
	a Public Electricity and Heat Production	29659	21	313				29993	39,8
	b Petroleum Refining	1609	5	9				1624	2,2
	c Manufacture of Solid Fuels and Other Energy Industries	0	0	0				0	0,0
	2 Manufacturing Industries and Construction	**6168**	**14**	**56**				**6237**	**8,3**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6168	14	56				6237	8,3
Sheet 2	**3 Transport**	**11628**	**63**	**236**				**11926**	**15,8**
	a Civil Aviation	108	0	0				108	0,1
	b Road Transportation	10054	61	211				10326	13,7
	c Railways	332	1	3				335	0,4
	d Navigation	575	0	12				587	0,8
	e Pipeline Transport	560	1	9				570	0,8
	4 Other Sectors	**8738**	**142**	**93**				**8974**	**11,9**
	a Commercial/Institutional	1421	5	9				1436	1,9
	b Residential	5283	131	53				5467	7,2
	c Agriculture/Forestry/Fishing	2035	5	31				2071	2,7
	5 Other (please specify)	**237**	**0**	**3**				**240**	**0,3**
	B Fugitive Emissions from Fuels	**445**	**303**	**3**				**751**	**1,0**
	1 Solid Fuels	**0**	**100**	**0**				**100**	**0,1**
	a Coal Mining	0	100	0				100	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**445**	**204**	**3**				**652**	**0,9**
	a Oil	0	0	0				0	0,0
	b Natural Gas	0	177	0				177	0,2
	c Venting and Flaring	445	26	3				474	0,6

Table 2 Sheet 1	**Total Industrial Processes**	**1311**	**0**	**0**	**96**	**0**	**133**	**1540**	**2,0**
	A Mineral Products	**1311**	**0**	**0**	**0**	**0**	**0**	**1311**	**1,7**
	1 Cement Production	1205	0	0	0	0	0	1205	1,6
	2 Lime Production	106	0	0	0	0	0	106	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**36**	**36**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	36	36	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**96**	**0**	**97**	**193**	**0,3**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	5	0	0	5	0,0
	2 Foam Blowing	0	0	0	91	0	0	91	0,1
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	97	97	0,1
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**133**		**0**				**133**	**0,2**
	A Paint Application	77		0				77	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	8		0				8	0,0
	D Other (please specify)	48		0				48	0,1

Table 4 Sheet 1

	Total Agriculture		**4085**	**9486**				**13571**	**18,0**
	A Enteric Fermentation		**3109**	**0**				**3109**	**4,1**
	1 Cattle		2711	0				2711	3,6
	2 Buffalo		0	0				0	0,0
	3 Sheep		26	0				26	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		8	0				8	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		364	0				364	0,5
	9 Poultry		0	0				0	0,0
	10 Other (please specify)		0	0				0	0,0
	B Manure Management		**976**	**496**				**1472**	**2,0**
	1 Cattle		377	0				377	0,5
	2 Buffalo		0	0				0	0,0
	3 Sheep		1	0				1	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		0	0				0	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		595	0				595	0,8
	9 Poultry		16	0				16	0,0
Sheet 2	10 Anaerobic		0	0				0	0,0
	11 Liquid Systems		0	71				71	0,1
	12 Solid Storage and Dry Lot		0	425				425	0,6
	13 Other (please specify)		-14	0				-14	0,0
	C Rice Cultivation		**0**	**0**				**0**	**0,0**
	1 Irrigated		0	0				0	0,0
	2 Rainfed		0	0				0	0,0
	3 Deep Water		0	0				0	0,0
	4 Other (please specify)		0	0				0	0,0
	D Agricultural Soils		**0**	**8990**				**8990**	**11,9**
	E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
	F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
	1 Cereals		0	0				0	0,0
	2 Pulse		0	0				0	0,0
	3 Tuber and Root		0	0				0	0,0
	4 Sugar Cane		0	0				0	0,0
	5 Other (please specify)		0	0				0	0,0
	G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1	**Total Land-Use Change and Forestry**	**-927**	**0**	**0**				**-927**	**-1,2**
	A Changes in Forest and Other Woody Biomass Stocks	**-927**	**0**	**0**				**-927**	**-1,2**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-927	0	0				-927	-1,2
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1359**	**0**				**1359**	**1,8**
	A Solid Waste Disposal on Land	**0**	**1359**	**0**				**1359**	**1,8**
	1 Managed Waste Disposal on Land	0	1359	0				1359	1,8
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFC	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,1008**	**0,0705**	**0,0302**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0042	0,0040	0,0002	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
2 Foam Blowing	0,0965	0,0665	0,0300	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**95,93**	**91,70**	**4,23**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
1 Refrigeration and Air Conditioning Equipment	5,23	5,20	0,03	0,00	0,00	0,00	0,00	0,00	0,00
2 Foam Blowing	90,70	86,50	4,20	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1993 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**59844**	**5992**	**10199**	**96**	**0**	**133**	**76264**	**100,0**
-1 Correction for electricity exchange		**1068**						**1068**	**1,4**
0 Correction for outside temperature variation		**-225**						**-225**	**-0,3**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**58484**	**549**	**713**				**59746**	**78,3**
A Fuel Combustion		58039	245	710				58994	77,4
B Fugitive Emissions from Fuels		445	303	3				751	1,0
2 Industrial Processes		**1311**	**0**	**0**	**96**	**0**	**133**	**1540**	**2,0**
3 Solvent and Other Product Use		**133**		**0**				**133**	**0,2**
4 Agriculture			**4085**	**9486**				**13571**	**17,8**
5 Land-Use Change & Forestry		**-927**	**0**	**0**				**-927**	**-1,2**
6 Waste		**0**	**1359**	**0**				**1359**	**1,8**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,1008**	**0,0705**	**0,0302**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**95,93**	**91,70**	**4,23**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**61969,4**	**28,41**	**2,53**	**270,28**	**633,28**	**113,37**	**156,23**
A Fuel Combustion Activities (Sectoral Approach)	**61528,3**	**11,43**	**2,52**	**267,72**	**592,06**	**97,64**	**151,44**
1 Energy Industries	**35624,1**	**1,39**	**1,16**	**105,79**	**9,20**	**1,50**	**111,32**
a Public Electricity and Heat Production	33889,8	1,10	1,13	100,52	8,64	1,31	108,65
b Petroleum Refining	1072,1	0,07	0,02	1,89	0,25	0,07	2,67
c Manufacture of Solid Fuels and Other Energy Industries	662,2	0,22	0,01	3,38	0,32	0,12	0,00
2 Manufacturing Industries and Construction	**6486,0**	**0,75**	**0,20**	**22,69**	**10,82**	**2,86**	**23,19**
a Iron and Steel	58,98	0	0	0,1	0,02	0	0,07
b Non-Ferrous Metals	15,17	0	0	0,02	0	0	0,03
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6411,9	0,74	0,19	22,56	10,79	2,85	23,09

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**11339,2**	**3,11**	**0,88**	**103,98**	**432,61**	**78,05**	**7,00**
a Civil Aviation	298,1	0,01	0,00	0,99	1,13	0,19	0,02
b Road Transportation	10155,5	2,89	0,84	90,06	424,61	75,43	1,73
c Railways	294,5	0,02	0,01	2,75	0,41	0,17	0,09
d Navigation	591,2	0,19	0,04	10,18	6,46	2,26	5,16
e Pipeline Transport	0,0	0,00	0,00	0,00	0,00	0,00	0,00
4 Other Sectors	**8020,5**	**6,19**	**0,28**	**34,77**	**139,15**	**15,15**	**9,92**
a Commercial/Institutional	1908,1	0,34	0,05	1,79	4,93	0,37	2,77
b Residential	4442,2	5,65	0,15	4,23	115,58	10,32	5,07
c Agriculture/Forestry/Fishing	1670,2	0,20	0,08	28,74	18,63	4,45	2,08
5 Other (please specify)	**58,5**	**0,00**	**0,00**	**0,49**	**0,28**	**0,08**	**0,02**
B Fugitive Emissions from Fuels	**441,1**	**16,98**	**0,01**	**2,56**	**41,23**	**15,73**	**4,79**
1 Solid Fuels	**0,0**	**5,58**	**0,00**	**0,00**	**39,70**	**0,00**	**0,00**
a Coal Mining	0,0	5,58	0,00	0,00	39,70	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**441,1**	**11,40**	**0,01**	**2,56**	**1,53**	**15,73**	**4,79**
a Oil	0,0	0,08	0,00	0,00	0,00	11,38	4,27
b Natural Gas	0,0	10,08	0,00	0,00	0,00	3,66	0,00
c Venting and Flaring	441,1	1,24	0,01	2,56	1,53	0,68	0,52

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

539,10	0,19	0,05	4,89	29,83	5,07	0,06

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**11556,1**	**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**
International Bunkers	**6736,4**	**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**
Aviation	1911,0	0,08	0,00	8,11	1,03	0,81	0,12
Marine	4825,3	0,11	0,31	116,14	11,32	3,56	69,96
CO2 Emissions from Biomass	**4819,8**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1317,8**	**1,3**	**0**	**0,6**	**0**	**0,59**	**0,22**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
A Mineral Products	**1317,8**	**1,3**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1198,6	1,2	0	0	0	0	0		0		0		0
2 Lime Production	119,2	0,1	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0,6**	**0**	**0**	**0,22**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0,6	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0,22		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0019**	**0,0019**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0019	0,0019
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0,59**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0,59	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0191**	**0,0051**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,4250	0,0190	0,0005	0,0000		0
2 Foam Blowing	0	0	0	0	0	0	0	0,1750	0,1240		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0191	0,0051
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,5200	0,0953	1300	HFC-402a	0,0050	0,0002	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0500	0,0467	140	HFC-404a	0,0250	0,0009	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0005	0,0000	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**126,5**	**0**	**40,59**
A Paint Application	76,48	0	24,54
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,63	0	2,45
D Other (please specify)	42,4	0	13,6

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**186,9**	**29,68**	**0**	**0**	**1,14**
A Enteric Fermentation	**142,63**	**0**	**0**	**0**	**0**
1 Cattle	124,75	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,16	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,33	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	16,38	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**44,28**	**1,6**	**0**	**0**	**0**
1 Cattle	17,50	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,07	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,02	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	26,80	0	0	0	0
9 Poultry	0,80	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,23	0	0	0
12 Solid Storage and Dry Lot	0	1,37	0	0	0
13 Other (please specify)	-0,91	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**28,08**	**0**	**0**	**1,14**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-930,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-930,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -930,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (14 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**65,50**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**65,50**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	65,50	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**63413,7**	**-930,0**	**282,12**	**32,21**	**270,88**	**633,28**	**164,99**	**156,44**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
1 Energy	**61969,4**		**28,41**	**2,53**	**270,28**	**633,28**	**113,37**	**156,23**						
A Fuel Combustion (Sectoral Approach)	61528,3		11,43	2,52	267,72	592,06	97,64	151,44						
1 Energy Industries	35624,1		1,39	1,16	105,79	9,20	1,50	111,32						
2 Manufacturing Industries and Construction	6486,0		0,75	0,20	22,69	10,82	2,86	23,19						
3 Transport	11339,2		3,11	0,88	103,98	432,61	78,05	7,00						
4 Other Sectors	8020,5		6,19	0,28	34,77	139,15	15,15	9,92						
5 Other (please specify)	58,5		0,00	0,00	0,49	0,28	0,08	0,02						
B Fugitive Emissions from Fuels	441,1		16,98	0,01	2,56	41,23	15,73	4,79						
1 Solid Fuels	0,0		5,58	0,00	0,00	39,70	0,00	0,00						
2 Oil and Natural Gas	441,1		11,40	0,01	2,56	1,53	15,73	4,79						
2 Industrial Processes	**1317,8**		**1,30**	**0,00**	**0,60**	**0,00**	**0,59**	**0,22**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
A Mineral Products	1317,8		1,30	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,60	0,00	0,00	0,22		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0019	0,0019
D Other Production	0,0		0,00	0,00	0,00	0,00	0,59	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,6000	0,1430	0,0005	0,0000	0,0191	0,0051
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**126,5**		**0,00**	**0,00**	**0,00**	**0,00**	**40,59**	**0,00**						
4 Agriculture	**0,0**		**186,90**	**29,68**	**0,00**	**0,00**	**1,14**	**0,00**						
A Enteric Fermentation	0,0		142,63	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		44,28	1,60	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	28,08	0,00	0,00	1,14	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-930,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -930,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,31	0,00						
6 Waste	**0,0**		**65,50**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		65,50	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (14 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**11556,1**	**0,0**	**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**						
International Bunkers	**6736,4**		**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**						
Aviation	1911,0		0,08	0,00	8,11	1,03	0,81	0,12						
Marine	4825,3		0,11	0,31	116,14	11,32	3,56	69,96						
CO2 Emissions from Biomass	**4819,8**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**63413,7**	**-930,0**	**282,12**	**32,21**	**270,88**	**633,28**	**164,99**	**156,44**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
1 Energy Reference Approach(1)														
Sectoral Approach(1)	**61969,4**		**28,41**	**2,53**	**270,28**	**633,28**	**113,37**	**156,23**						
A Fuel Combustion	61528,3		11,43	2,52	267,72	592,06	97,64	151,44						
B Fugitive Emissions from Fuels	441,1		16,98	0,01	2,56	41,23	15,73	4,79						
2 Industrial Processes	**1317,8**		**1,30**	**0,00**	**0,60**	**0,00**	**0,59**	**0,22**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
3 Solvent and Other Product Use	**126,5**		**0,00**	**0,00**	**0,00**	**0,00**	**40,59**	**0,00**						
4 Agriculture	**0,0**		**186,90**	**29,68**	**0,00**	**0,00**	**1,14**	**0,00**						
5 Land-Use Change & Forestry		**(2) -930,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste	**0,0**		**65,50**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**11556,1**	**0,0**	**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**						
International Bunkers	**6736,4**		**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**						
Aviation	1911,0		0,08	0,00	8,11	1,03	0,81	0,12						
Marine	4825,3		0,11	0,31	116,14	11,32	3,56	69,96						
CO2 Emissions from Biomass	**4819,8**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (14 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**60373,7**	**-930,0**	**282,12**	**32,21**	**270,88**	**633,28**	**164,99**	**156,44**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
-1 Correction for electricity exchange		**-3803,0**													
0 Correction for outside temperature variation		**763,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**61969,4**		**28,41**	**2,53**	**270,28**	**633,28**	**113,37**	**156,23**						
A Fuel Combustion		61528,3		11,43	2,52	267,72	592,06	97,64	151,44						
B Fugitive Emissions from Fuels		441,1		16,98	0,01	2,56	41,23	15,73	4,79						
2 Industrial Processes		**1317,8**		**1,30**	**0,00**	**0,60**	**0,00**	**0,59**	**0,22**	**0,6000**	**0,1430**	**0,0005**	**0,0000**	**0,0210**	**0,0070**
3 Solvent and Other Product Use		**126,5**		**0,00**	**0,00**	**0,00**	**0,00**	**40,59**	**0,00**						
4 Agriculture		**0,0**		**186,90**	**29,68**	**0,00**	**0,00**	**1,14**	**0,00**						
5 Land-Use Change & Forestry			**(2) -930,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,31**	**0,00**						
6 Waste		**0,0**		**65,50**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**11556,1**	**0,0**	**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**						
International Bunkers		**6736,4**		**0,20**	**0,31**	**124,25**	**12,35**	**4,37**	**70,08**						
Aviation		1911,0		0,08	0,00	8,11	1,03	0,81	0,12						
Marine		4825,3		0,11	0,31	116,14	11,32	3,56	69,96						
CO2 Emissions from Biomass		**4819,8**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (14 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1994 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**62484**	**5924**	**9985**	**134**	**0**	**167**	**78694**	**100,0**
Table 1 Sheet 1	**Total Energy**	**61969**	**597**	**784**				**63350**	**80,5**
	A Fuel Combustion Activities (Sectoral Approach)	**61528**	**240**	**781**				**62549**	**79,5**
	1 Energy Industries	**35624**	**29**	**360**				**36013**	**45,8**
	a Public Electricity and Heat Production	33890	23	350				34263	43,5
	b Petroleum Refining	1072	1	6				1080	1,4
	c Manufacture of Solid Fuels and Other Energy Industries	662	5	3				670	0,9
	2 Manufacturing Industries and Construction	**6486**	**16**	**62**				**6564**	**8,3**
	a Iron and Steel	58,98	0	0				59	0,1
	b Non-Ferrous Metals	15,17	0	0				15	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6412	16	59				6486	8,2
Sheet 2	**3 Transport**	**11339**	**65**	**273**				**11677**	**14,8**
	a Civil Aviation	298	0	0				298	0,4
	b Road Transportation	10155	61	260				10477	13,3
	c Railways	295	0	3				298	0,4
	d Navigation	591	4	12				608	0,8
	e Pipeline Transport	0	0	0				0	0,0
	4 Other Sectors	**8020**	**130**	**87**				**8237**	**10,5**
	a Commercial/Institutional	1908	7	16				1931	2,5
	b Residential	4442	119	47				4607	5,9
	c Agriculture/Forestry/Fishing	1670	4	25				1699	2,2
	5 Other (please specify)	**58**	**0**	**0**				**58**	**0,1**
	B Fugitive Emissions from Fuels	**441**	**357**	**3**				**801**	**1,0**
	1 Solid Fuels	**0**	**117**	**0**				**117**	**0,1**
	a Coal Mining	0	117	0				117	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**441**	**239**	**3**				**684**	**0,9**
	a Oil	0	2	0				2	0,0
	b Natural Gas	0	212	0				212	0,3
	c Venting and Flaring	441	26	3				470	0,6

Table 2 Sheet 1	**Total Industrial Processes**	**1318**	**27**	**0**	**134**	**0**	**167**	**1646**	**2,1**
	A Mineral Products	**1318**	**27**	**0**	**0**	**0**	**0**	**1345**	**1,7**
	1 Cement Production	1199	25	0	0	0	0	1224	1,6
	2 Lime Production	119	2	0	0	0	0	121	0,2
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**45**	**45**	**0,1**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	45	45	0,1
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**134**	**0**	**121**	**255**	**0,3**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	26	0	0	26	0,0
	2 Foam Blowing	0	0	0	108	0	0	108	0,1
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	121	121	0,2
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**127**		**0**				**127**	**0,2**
	A Paint Application	76		0				76	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	8		0				8	0,0
	D Other (please specify)	42		0				42	0,1

Table 4 Sheet 1

	Total Agriculture		**3925**	**9201**				**13126**	**16,7**
	A Enteric Fermentation		**2995**	**0**				**2995**	**3,8**
	1 Cattle		2620	0				2620	3,3
	2 Buffalo		0	0				0	0,0
	3 Sheep		24	0				24	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		7	0				7	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		344	0				344	0,4
	9 Poultry		0	0				0	0,0
	10 Other (please specify)		0	0				0	0,0
	B Manure Management		**930**	**496**				**1426**	**1,8**
	1 Cattle		368	0				368	0,5
	2 Buffalo		0	0				0	0,0
	3 Sheep		1	0				1	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		0	0				0	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		563	0				563	0,7
	9 Poultry		17	0				17	0,0
Sheet 2	10 Anaerobic		0	0				0	0,0
	11 Liquid Systems		0	71				71	0,1
	12 Solid Storage and Dry Lot		0	425				425	0,5
	13 Other (please specify)		-19	0				-19	0,0
	C Rice Cultivation		**0**	**0**				**0**	**0,0**
	1 Irrigated		0	0				0	0,0
	2 Rainfed		0	0				0	0,0
	3 Deep Water		0	0				0	0,0
	4 Other (please specify)		0	0				0	0,0
	D Agricultural Soils		**0**	**8705**				**8705**	**11,1**
	E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
	F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
	1 Cereals		0	0				0	0,0
	2 Pulse		0	0				0	0,0
	3 Tuber and Root		0	0				0	0,0
	4 Sugar Cane		0	0				0	0,0
	5 Other (please specify)		0	0				0	0,0
	G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1

	Total Land-Use Change and Forestry	**-930**	**0**	**0**				**-930**	**-1,2**
	A Changes in Forest and Other Woody Biomass Stocks	**-930**	**0**	**0**				**-930**	**-1,2**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-930	0	0				-930	-1,2
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1376**	**0**				**1376**	**1,7**
	A Solid Waste Disposal on Land	**0**	**1376**	**0**				**1376**	**1,7**
	1 Managed Waste Disposal on Land	0	1376	0				1376	1,7
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	**total HFC**	**HFC-134a**	**HFC-152a**	**HFC-401a**	**HFC-402a**	**HFC-404a**	**HFC-407c**	**HFC-507a**	**Oth HFCs**
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,1430**	**0,0953**	**0,0467**	**0,0000**	**0,0002**	**0,0009**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0190	0,0173	0,0007	0,0000	0,0002	0,0009	0,0000	0,0000	0,0000
2 Foam Blowing	0,1240	0,0780	0,0460	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**133,57**	**123,86**	**6,53**	**0,00**	**0,29**	**2,89**	**0,00**	**0,00**	**0,00**
1 Refrigeration and Air Conditioning Equipment	25,71	22,44	0,09	0,00	0,29	2,89	0,00	0,00	0,00
2 Foam Blowing	107,86	101,42	6,44	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1994 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**59444**	**5924**	**9985**	**134**	**0**	**167**	**75654**	**100,0**
-1 Correction for electricity exchange		**-3803**						**-3803**	**-5,0**
0 Correction for outside temperature variation		**763**						**763**	**1,0**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**61969**	**597**	**784**				**63350**	**83,7**
A Fuel Combustion		61528	240	781				62549	82,7
B Fugitive Emissions from Fuels		441	357	3				801	1,1
2 Industrial Processes		**1318**	**27**	**0**	**134**	**0**	**167**	**1646**	**2,2**
3 Solvent and Other Product Use		**127**		**0**				**127**	**0,2**
4 Agriculture			**3925**	**9201**				**13126**	**17,3**
5 Land-Use Change & Forestry		**-930**	**0**	**0**				**-930**	**-1,2**
6 Waste		**0**	**1376**	**0**				**1376**	**1,8**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,1430**	**0,0953**	**0,0467**	**0,0000**	**0,0002**	**0,0009**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**133,57**	**123,86**	**6,53**	**0,00**	**0,29**	**2,89**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**58911,8**	**30,02**	**2,54**	**251,22**	**608,43**	**112,70**	**148,55**
A Fuel Combustion Activities (Sectoral Approach)	**58577,9**	**12,60**	**2,54**	**249,39**	**563,37**	**95,81**	**145,33**
1 Energy Industries	**32152,7**	**1,56**	**1,05**	**90,92**	**9,25**	**1,63**	**106,61**
a Public Electricity and Heat Production	29950,1	1,18	1,01	84,95	8,53	1,38	105,36
b Petroleum Refining	1484,4	0,15	0,03	2,39	0,38	0,12	1,25
c Manufacture of Solid Fuels and Other Energy Industries	718,1	0,23	0,01	3,59	0,34	0,12	0,00
2 Manufacturing Industries and Construction	**6039,4**	**0,63**	**0,18**	**21,32**	**9,52**	**2,68**	**19,74**
a Iron and Steel	58,98	0	0	0,1	0,02	0	0,07
b Non-Ferrous Metals	15,17	0	0	0,02	0	0	0,03
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	5965,3	0,63	0,18	21,19	9,50	2,67	19,64

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**11509,7**	**3,12**	**1,00**	**100,80**	**403,94**	**74,70**	**7,12**
a Civil Aviation	226,0	0,01	0,00	0,78	1,09	0,18	0,01
b Road Transportation	10349,5	2,91	0,95	86,28	395,96	72,08	1,78
c Railways	302,7	0,02	0,01	2,83	0,42	0,18	0,10
d Navigation	631,5	0,19	0,04	10,91	6,47	2,26	5,24
e Pipeline Transport	0,0	0,00	0,00	0,00	0,00	0,00	0,00
4 Other Sectors	**8737,4**	**7,28**	**0,30**	**35,24**	**140,09**	**16,63**	**11,81**
a Commercial/Institutional	1340,2	0,27	0,03	1,33	4,20	0,32	1,12
b Residential	5090,6	6,07	0,16	4,89	115,76	10,86	5,46
c Agriculture/Forestry/Fishing	2306,7	0,94	0,10	29,02	20,13	5,45	5,23
5 Other (please specify)	**138,7**	**0,01**	**0,01**	**1,11**	**0,56**	**0,18**	**0,04**
B Fugitive Emissions from Fuels	**333,9**	**17,42**	**0,01**	**1,84**	**45,06**	**16,89**	**3,22**
1 Solid Fuels	**0,0**	**6,27**	**0,00**	**0,00**	**43,87**	**0,00**	**0,00**
a Coal Mining	0,0	6,27	0,00	0,00	43,87	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**333,9**	**11,15**	**0,01**	**1,84**	**1,20**	**16,89**	**3,22**
a Oil	0,0	0,10	0,00	0,00	0,00	12,71	3,02
b Natural Gas	0,0	10,08	0,00	0,00	0,00	3,66	0,00
c Venting and Flaring	333,9	0,97	0,01	1,84	1,20	0,52	0,20

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

492,42	0,17	0,05	4,15	23,66	4,01	0,06

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**12561,2**	**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**
International Bunkers	**7090,2**	**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**
Aviation	1959,3	0,09	0,00	8,29	1,08	0,83	0,13
Marine	5130,8	0,12	0,33	122,05	12,04	3,78	77,52
CO2 Emissions from Biomass	**5471,0**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1311,0**	**1,31**	**0**	**0,6**	**0**	**0,63**	**0,22**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
A Mineral Products	**1311,0**	**1,31**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1202,8	1,22	0	0	0	0	0		0		0		0
2 Lime Production	108,2	0,09	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0,6**	**0**	**0**	**0,22**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0,6	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0,22		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0015**	**0,0015**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0015	0,0015
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0,63**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0,63	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0154**	**0,0044**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,4000	0,0357	0,0015	0,0001		0
2 Foam Blowing	0	0	0	0	0	0	0	0,3450	0,1781		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0154	0,0044
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,5650	0,1594	1300	HFC-402a	0,0140	0,0014	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0470	0,0446	140	HFC-404a	0,1190	0,0085	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0015	0,0001	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**125,14**	**0**	**40,15**
A Paint Application	75,77	0	24,31
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,48	0	2,40
D Other (please specify)	41,89	0	13,44

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**186,98**	**29,46**	**0**	**0**	**1,33**
A Enteric Fermentation	**142,52**	**0**	**0**	**0**	**0**
1 Cattle	124,41	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,16	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,32	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	16,63	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**44,47**	**1,57**	**0**	**0**	**0**
1 Cattle	17,53	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,07	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,02	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	27,24	0	0	0	0
9 Poultry	0,76	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,23	0	0	0
12 Solid Storage and Dry Lot	0	1,34	0	0	0
13 Other (please specify)	-1,15	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**27,89**	**0**	**0**	**1,33**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-934,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-934,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -934,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (18 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**62,70**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**62,70**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	62,70	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**60347,9**	**-934,0**	**281,01**	**32,01**	**251,82**	**608,43**	**163,76**	**148,77**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
1 Energy	**58911,8**		**30,02**	**2,54**	**251,22**	**608,43**	**112,70**	**148,55**						
A Fuel Combustion (Sectoral Approach)	58577,9		12,60	2,54	249,39	563,37	95,81	145,33						
1 Energy Industries	32152,7		1,56	1,05	90,92	9,25	1,63	106,61						
2 Manufacturing Industries and Construction	6039,4		0,63	0,18	21,32	9,52	2,68	19,74						
3 Transport	11509,7		3,12	1,00	100,80	403,94	74,70	7,12						
4 Other Sectors	8737,4		7,28	0,30	35,24	140,09	16,63	11,81						
5 Other (please specify)	138,7		0,01	0,01	1,11	0,56	0,18	0,04						
B Fugitive Emissions from Fuels	333,9		17,42	0,01	1,84	45,06	16,89	3,22						
1 Solid Fuels	0,0		6,27	0,00	0,00	43,87	0,00	0,00						
2 Oil and Natural Gas	333,9		11,15	0,01	1,84	1,20	16,89	3,22						
2 Industrial Processes	**1311,0**		**1,31**	**0,00**	**0,60**	**0,00**	**0,63**	**0,22**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
A Mineral Products	1311,0		1,31	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,60	0,00	0,00	0,22		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0015	0,0015
D Other Production	0,0		0,00	0,00	0,00	0,00	0,63	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,7450	0,2139	0,0015	0,0001	0,0154	0,0044
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**125,1**		**0,00**	**0,00**	**0,00**	**0,00**	**40,15**	**0,00**						
4 Agriculture	**0,0**		**186,98**	**29,46**	**0,00**	**0,00**	**1,33**	**0,00**						
A Enteric Fermentation	0,0		142,52	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		44,47	1,57	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	27,89	0,00	0,00	1,33	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-934,0**	**0,00**	**0,00**	**0,00**	**0,00**	**8,95**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -934,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	8,95	0,00						
6 Waste	**0,0**		**62,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		62,70	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (18 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**12561,2**	**0,0**	**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**						
International Bunkers	**7090,2**		**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**						
Aviation	1959,3		0,09	0,00	8,29	1,08	0,83	0,13						
Marine	5130,8		0,12	0,33	122,05	12,04	3,78	77,52						
CO2 Emissions from Biomass	**5471,0**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**60347,9**	**-934,0**	**281,01**	**32,01**	**251,82**	**608,43**	**163,76**	**148,77**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**58911,8**		**30,02**	**2,54**	**251,22**	**608,43**	**112,70**	**148,55**						
A Fuel Combustion	58577,9		12,60	2,54	249,39	563,37	95,81	145,33						
B Fugitive Emissions from Fuels	333,9		17,42	0,01	1,84	45,06	16,89	3,22						
2 Industrial Processes	**1311,0**		**1,31**	**0,00**	**0,60**	**0,00**	**0,63**	**0,22**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
3 Solvent and Other Product Use	**125,1**		**0,00**	**0,00**	**0,00**	**0,00**	**40,15**	**0,00**						
4 Agriculture	**0,0**		**186,98**	**29,46**	**0,00**	**0,00**	**1,33**	**0,00**						
5 Land-Use Change & Forestry		**(2) -934,0**	**0,00**	**0,00**	**0,00**	**0,00**	**8,95**	**0,00**						
6 Waste	**0,0**		**62,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**12561,2**	**0,0**	**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**						
International Bunkers	**7090,2**		**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**						
Aviation	1959,3		0,09	0,00	8,29	1,08	0,83	0,13						
Marine	5130,8		0,12	0,33	122,05	12,04	3,78	77,52						
CO2 Emissions from Biomass	**5471,0**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (18 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**59905,9**	**-934,0**	**281,01**	**32,01**	**251,82**	**608,43**	**163,76**	**148,77**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
-1 Correction for electricity exchange		**-690,0**													
0 Correction for outside temperature variation		**248,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**58911,8**		**30,02**	**2,54**	**251,22**	**608,43**	**112,70**	**148,55**						
A Fuel Combustion		58577,9		12,60	2,54	249,39	563,37	95,81	145,33						
B Fugitive Emissions from Fuels		333,9		17,42	0,01	1,84	45,06	16,89	3,22						
2 Industrial Processes		**1311,0**		**1,31**	**0,00**	**0,60**	**0,00**	**0,63**	**0,22**	**0,7450**	**0,2139**	**0,0015**	**0,0001**	**0,0169**	**0,0059**
3 Solvent and Other Product Use		**125,1**		**0,00**	**0,00**	**0,00**	**0,00**	**40,15**	**0,00**						
4 Agriculture		**0,0**		**186,98**	**29,46**	**0,00**	**0,00**	**1,33**	**0,00**						
5 Land-Use Change & Forestry			**(2) -934,0**	**0,00**	**0,00**	**0,00**	**0,00**	**8,95**	**0,00**						
6 Waste		**0,0**		**62,70**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**12561,2**	**0,0**	**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**						
International Bunkers		**7090,2**		**0,20**	**0,33**	**130,34**	**13,12**	**4,61**	**77,64**						
Aviation		1959,3		0,09	0,00	8,29	1,08	0,83	0,13						
Marine		5130,8		0,12	0,33	122,05	12,04	3,78	77,52						
CO2 Emissions from Biomass		**5471,0**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (18 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1995 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**59414**	**5901**	**9920**	**244**	**1**	**140**	**75619**	**100,0**
Table 1 Sheet 1	**Total Energy**	**58912**	**630**	**787**				**60330**	**79,8**
	A Fuel Combustion Activities (Sectoral Approach)	**58578**	**265**	**787**				**59630**	**78,9**
	1 Energy Industries	**32153**	**33**	**326**				**32511**	**43,0**
	a Public Electricity and Heat Production	29950	25	313				30288	40,1
	b Petroleum Refining	1484	3	9				1497	2,0
	c Manufacture of Solid Fuels and Other Energy Industries	718	5	3				726	1,0
	2 Manufacturing Industries and Construction	**6039**	**13**	**56**				**6108**	**8,1**
	a Iron and Steel	58,98	0	0				59	0,1
	b Non-Ferrous Metals	15,17	0	0				15	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	5965	13	56				6034	8,0
Sheet 2	**3 Transport**	**11510**	**66**	**310**				**11885**	**15,7**
	a Civil Aviation	226	0	0				226	0,3
	b Road Transportation	10350	61	295				10705	14,2
	c Railways	303	0	3				306	0,4
	d Navigation	632	4	12				648	0,9
	e Pipeline Transport	0	0	0				0	0,0
	4 Other Sectors	**8737**	**153**	**93**				**8983**	**11,9**
	a Commercial/Institutional	1340	6	9				1355	1,8
	b Residential	5091	127	50				5268	7,0
	c Agriculture/Forestry/Fishing	2307	20	31				2357	3,1
	5 Other (please specify)	**139**	**0**	**3**				**142**	**0,2**
	B Fugitive Emissions from Fuels	**334**	**366**	**3**				**703**	**0,9**
	1 Solid Fuels	**0**	**132**	**0**				**132**	**0,2**
	a Coal Mining	0	132	0				132	0,2
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**334**	**234**	**3**				**571**	**0,8**
	a Oil	0	2	0				2	0,0
	b Natural Gas	0	212	0				212	0,3
	c Venting and Flaring	334	20	3				357	0,5

Table 2 Sheet 1	**Total Industrial Processes**	**1311**	**28**	**0**	**244**	**1**	**140**	**1723**	**2,3**
	A Mineral Products	**1311**	**28**	**0**	**0**	**0**	**0**	**1339**	**1,8**
	1 Cement Production	1203	26	0	0	0	0	1228	1,6
	2 Lime Production	108	2	0	0	0	0	110	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**36**	**36**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	36	36	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**244**	**1**	**104**	**349**	**0,5**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	62	1	0	63	0,1
	2 Foam Blowing	0	0	0	181	0	0	181	0,2
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	104	104	0,1
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**125**		**0**				**125**	**0,2**
	A Paint Application	76		0				76	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	7		0				7	0,0
	D Other (please specify)	42		0				42	0,1

Table 4 Sheet 1

Total Agriculture		**3927**	**9133**				**13059**	**17,3**
A Enteric Fermentation		**2993**	**0**				**2993**	**4,0**
1 Cattle		2613	0				2613	3,5
2 Buffalo		0	0				0	0,0
3 Sheep		24	0				24	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		7	0				7	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		349	0				349	0,5
9 Poultry		0	0				0	0,0
10 Other (please specify)		0	0				0	0,0
B Manure Management		**934**	**487**				**1421**	**1,9**
1 Cattle		368	0				368	0,5
2 Buffalo		0	0				0	0,0
3 Sheep		1	0				1	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		0	0				0	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		572	0				572	0,8
9 Poultry		16	0				16	0,0
Sheet 2 10 Anaerobic		0	0				0	0,0
11 Liquid Systems		0	71				71	0,1
12 Solid Storage and Dry Lot		0	415				415	0,5
13 Other (please specify)		-24	0				-24	0,0
C Rice Cultivation		**0**	**0**				**0**	**0,0**
1 Irrigated		0	0				0	0,0
2 Rainfed		0	0				0	0,0
3 Deep Water		0	0				0	0,0
4 Other (please specify)		0	0				0	0,0
D Agricultural Soils		**0**	**8646**				**8646**	**11,4**
E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
1 Cereals		0	0				0	0,0
2 Pulse		0	0				0	0,0
3 Tuber and Root		0	0				0	0,0
4 Sugar Cane		0	0				0	0,0
5 Other (please specify)		0	0				0	0,0
G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1

	Total Land-Use Change and Forestry	**-934**	**0**	**0**				**-934**	**-1,2**
	A Changes in Forest and Other Woody Biomass Stocks	**-934**	**0**	**0**				**-934**	**-1,2**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-934	0	0				-934	-1,2
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1317**	**0**				**1317**	**1,7**
	A Solid Waste Disposal on Land	**0**	**1317**	**0**				**1317**	**1,7**
	1 Managed Waste Disposal on Land	0	1317	0				1317	1,7
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	**total HFC**	**HFC-134a**	**HFC-152a**	**HFC-401a**	**HFC-402a**	**HFC-404a**	**HFC-407c**	**HFC-507a**	**Oth HFCs**
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,2139**	**0,1594**	**0,0446**	**0,0000**	**0,0014**	**0,0085**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0357	0,0246	0,0012	0,0000	0,0014	0,0085	0,0000	0,0000	0,0000
2 Foam Blowing	0,1781	0,1347	0,0434	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**243,56**	**207,19**	**6,24**	**0,00**	**2,27**	**27,86**	**0,00**	**0,00**	**0,00**
1 Refrigeration and Air Conditioning Equipment	62,32	32,03	0,17	0,00	2,27	27,86	0,00	0,00	0,00
2 Foam Blowing	181,24	175,16	6,08	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1995 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**58972**	**5901**	**9920**	**244**	**1**	**140**	**75177**	**100,0**
-1 Correction for electricity exchange		**-690**						**-690**	**-0,9**
0 Correction for outside temperature variation		**248**						**248**	**0,3**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**58912**	**630**	**787**				**60330**	**80,2**
A Fuel Combustion		58578	265	787				59630	79,3
B Fugitive Emissions from Fuels		334	366	3				703	0,9
2 Industrial Processes		**1311**	**28**	**0**	**244**	**1**	**140**	**1723**	**2,3**
3 Solvent and Other Product Use		**125**		**0**				**125**	**0,2**
4 Agriculture			**3927**	**9133**				**13059**	**17,4**
5 Land-Use Change & Forestry		**-934**	**0**	**0**				**-934**	**-1,2**
6 Waste		**0**	**1317**	**0**				**1317**	**1,8**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,2139**	**0,1594**	**0,0446**	**0,0000**	**0,0014**	**0,0085**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**243,56**	**207,19**	**6,24**	**0,00**	**2,27**	**27,86**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**72145,3**	**30,79**	**3,05**	**290,16**	**615,32**	**108,26**	**179,47**
A Fuel Combustion Activities (Sectoral Approach)	**71767,7**	**13,31**	**3,04**	**288,20**	**570,21**	**90,02**	**176,58**
1 Energy Industries	**44379,2**	**1,62**	**1,43**	**129,05**	**10,77**	**1,83**	**144,87**
a Public Electricity and Heat Production	42044,5	1,51	1,39	122,82	10,24	1,73	143,73
b Petroleum Refining	1396,0	0,04	0,03	2,48	0,31	0,04	1,13
c Manufacture of Solid Fuels and Other Energy Industries	938,7	0,07	0,02	3,75	0,21	0,07	0,00
2 Manufacturing Industries and Construction	**6283,6**	**0,67**	**0,18**	**24,78**	**12,75**	**3,15**	**11,68**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6283,6	0,67	0,18	24,78	12,75	3,15	11,68

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**11748,9**	**3,15**	**1,11**	**97,38**	**381,54**	**66,70**	**6,55**
a Civil Aviation	235,2	0,01	0,00	0,83	1,31	0,21	0,02
b Road Transportation	10574,6	2,94	1,06	82,73	373,29	64,04	1,84
c Railways	301,3	0,02	0,01	2,81	0,46	0,18	0,10
d Navigation	637,8	0,19	0,04	11,00	6,48	2,26	4,60
e Pipeline Transport	0,0	0,00	0,00	0,00	0,00	0,00	0,00
4 Other Sectors	**9302,6**	**7,88**	**0,32**	**36,59**	**164,95**	**18,27**	**13,47**
a Commercial/Institutional	1451,0	0,35	0,04	1,49	5,93	0,43	1,39
b Residential	5463,2	6,56	0,18	5,16	133,03	11,58	5,86
c Agriculture/Forestry/Fishing	2388,4	0,96	0,11	29,94	25,99	6,26	6,21
5 Other (please specify)	**53,5**	**0,00**	**0,00**	**0,41**	**0,20**	**0,06**	**0,02**
B Fugitive Emissions from Fuels	**377,6**	**17,47**	**0,01**	**1,95**	**45,12**	**18,24**	**2,89**
1 Solid Fuels	**0,0**	**6,27**	**0,00**	**0,00**	**43,87**	**0,00**	**0,00**
a Coal Mining	0,0	6,27	0,00	0,00	43,87	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**377,6**	**11,20**	**0,01**	**1,95**	**1,25**	**18,24**	**2,89**
a Oil	0,0	0,11	0,00	0,00	0,00	14,04	2,61
b Natural Gas	0,0	10,08	0,00	0,00	0,00	3,66	0,00
c Venting and Flaring	377,6	1,01	0,01	1,95	1,25	0,54	0,27

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

432,45	0,14	0,05	3,40	18,44	3,11	0,06

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**12942,5**	**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**
International Bunkers	**6882,8**	**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**
Aviation	2065,3	0,09	0,00	8,65	1,11	0,82	0,13
Marine	4817,5	0,11	0,30	131,91	11,22	3,53	71,84
CO2 Emissions from Biomass	**6059,7**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1388,1**	**0,09**	**0**	**0,5**	**0**	**0,06**	**0,08**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
A Mineral Products	**1388,1**	**0,09**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1282,1	0	0	0	0	0	0		0		0		0
2 Lime Production	106,1	0,09	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0,5**	**0**	**0**	**0,08**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0,5	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0,08		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0004**	**0,0004**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0004	0,0004
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0,06**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0,06	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0106**	**0,0032**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,4900	0,0654	0,0030	0,0005		0
2 Foam Blowing	0	0	0	0	0	0	0	0,4120	0,2198		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0106	0,0032
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,7400	0,2193	1300	HFC-402a	0,0200	0,0041	1680	HFC-507a	0,0000	0,0000	3300
HFC-152a	0,0320	0,0334	140	HFC-404a	0,1100	0,0285	3260	Other HFCs	0,0000	0,0000	1725
HFC-401a	0,0000	0,0000	18	HFC-407c	0,0000	0,0000	1526	PFC (C3F8)	0,0030	0,0004	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**123,8**	**0**	**39,72**
A Paint Application	75,09	0	24,09
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,32	0	2,35
D Other (please specify)	41,39	0	13,28

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**186,23**	**28,52**	**0**	**0**	**1,31**
A Enteric Fermentation	**142,38**	**0**	**0**	**0**	**0**
1 Cattle	124,39	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,36	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,36	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	16,26	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**43,85**	**1,57**	**0**	**0**	**0**
1 Cattle	17,50	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,08	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,02	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	26,71	0	0	0	0
9 Poultry	0,76	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,23	0	0	0
12 Solid Storage and Dry Lot	0	1,35	0	0	0
13 Other (please specify)	-1,23	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**26,95**	**0**	**0**	**1,31**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-947,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-947,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -947,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (31 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**62,10**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**62,10**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	62,10	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**73657,3**	**-947,0**	**279,21**	**31,57**	**290,66**	**615,32**	**158,30**	**179,54**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
1 Energy	**72145,3**		**30,79**	**3,05**	**290,16**	**615,32**	**108,26**	**179,47**						
A Fuel Combustion (Sectoral Approach)	71767,7		13,31	3,04	288,20	570,21	90,02	176,58						
1 Energy Industries	44379,2		1,62	1,43	129,05	10,77	1,83	144,87						
2 Manufacturing Industries and Construction	6283,6		0,67	0,18	24,78	12,75	3,15	11,68						
3 Transport	11748,9		3,15	1,11	97,38	381,54	66,70	6,55						
4 Other Sectors	9302,6		7,88	0,32	36,59	164,95	18,27	13,47						
5 Other (please specify)	53,5		0,00	0,00	0,41	0,20	0,06	0,02						
B Fugitive Emissions from Fuels	377,6		17,47	0,01	1,95	45,12	18,24	2,89						
1 Solid Fuels	0,0		6,27	0,00	0,00	43,87	0,00	0,00						
2 Oil and Natural Gas	377,6		11,20	0,01	1,95	1,25	18,24	2,89						
2 Industrial Processes	**1388,1**		**0,09**	**0,00**	**0,50**	**0,00**	**0,06**	**0,08**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
A Mineral Products	1388,1		0,09	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,50	0,00	0,00	0,08		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0004	0,0004
D Other Production	0,0		0,00	0,00	0,00	0,00	0,06	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,9020	0,2852	0,0030	0,0005	0,0106	0,0032
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**123,8**		**0,00**	**0,00**	**0,00**	**0,00**	**39,72**	**0,00**						
4 Agriculture	**0,0**		**186,23**	**28,52**	**0,00**	**0,00**	**1,31**	**0,00**						
A Enteric Fermentation	0,0		142,38	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		43,85	1,57	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	26,95	0,00	0,00	1,31	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-947,0**	**0,00**	**0,00**	**0,00**	**0,00**	**8,95**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -947,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	8,95	0,00						
6 Waste	**0,0**		**62,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		62,10	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (31 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**12942,5**	**0,0**	**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**						
International Bunkers	**6882,8**		**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**						
Aviation	2065,3		0,09	0,00	8,65	1,11	0,82	0,13						
Marine	4817,5		0,11	0,30	131,91	11,22	3,53	71,84						
CO2 Emissions from Biomass	**6059,7**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**73657,3**	**-947,0**	**279,21**	**31,57**	**290,66**	**615,32**	**158,30**	**179,54**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**72145,3**		**30,79**	**3,05**	**290,16**	**615,32**	**108,26**	**179,47**						
A Fuel Combustion	71767,7		13,31	3,04	288,20	570,21	90,02	176,58						
B Fugitive Emissions from Fuels	377,6		17,47	0,01	1,95	45,12	18,24	2,89						
2 Industrial Processes	**1388,1**		**0,09**	**0,00**	**0,50**	**0,00**	**0,06**	**0,08**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
3 Solvent and Other Product Use	**123,8**		**0,00**	**0,00**	**0,00**	**0,00**	**39,72**	**0,00**						
4 Agriculture	**0,0**		**186,23**	**28,52**	**0,00**	**0,00**	**1,31**	**0,00**						
5 Land-Use Change & Forestry		**(2) -947,0**	**0,00**	**0,00**	**0,00**	**0,00**	**8,95**	**0,00**						
6 Waste	**0,0**		**62,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**12942,5**	**0,0**	**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**						
International Bunkers	**6882,8**		**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**						
Aviation	2065,3		0,09	0,00	8,65	1,11	0,82	0,13						
Marine	4817,5		0,11	0,30	131,91	11,22	3,53	71,84						
CO2 Emissions from Biomass	**6059,7**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (31 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**58943,3**	**-947,0**	**279,21**	**31,57**	**290,66**	**615,32**	**158,30**	**179,54**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
-1 Correction for electricity exchange		**-13152,0**													
0 Correction for outside temperature variation		**-1562,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**72145,3**		**30,79**	**3,05**	**290,16**	**615,32**	**108,26**	**179,47**						
A Fuel Combustion		71767,7		13,31	3,04	288,20	570,21	90,02	176,58						
B Fugitive Emissions from Fuels		377,6		17,47	0,01	1,95	45,12	18,24	2,89						
2 Industrial Processes		**1388,1**		**0,09**	**0,00**	**0,50**	**0,00**	**0,06**	**0,08**	**0,9020**	**0,2852**	**0,0030**	**0,0005**	**0,0110**	**0,0036**
3 Solvent and Other Product Use		**123,8**		**0,00**	**0,00**	**0,00**	**0,00**	**39,72**	**0,00**						
4 Agriculture		**0,0**		**186,23**	**28,52**	**0,00**	**0,00**	**1,31**	**0,00**						
5 Land-Use Change & Forestry			**(2) -947,0**	**0,00**	**0,00**	**0,00**	**0,00**	**8,95**	**0,00**						
6 Waste		**0,0**		**62,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**12942,5**	**0,0**	**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**						
International Bunkers		**6882,8**		**0,20**	**0,30**	**140,56**	**12,33**	**4,35**	**71,97**						
Aviation		2065,3		0,09	0,00	8,65	1,11	0,82	0,13						
Marine		4817,5		0,11	0,30	131,91	11,22	3,53	71,84						
CO2 Emissions from Biomass		**6059,7**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (31 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1996 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**72710**	**5863**	**9787**	**389**	**3**	**85**	**88838**	**100,0**
Table 1 Sheet 1	**Total Energy**	**72145**	**647**	**946**				**73737**	**83,0**
	A Fuel Combustion Activities (Sectoral Approach)	**71768**	**280**	**942**				**72990**	**82,2**
	1 Energy Industries	**44379**	**34**	**443**				**44857**	**50,5**
	a Public Electricity and Heat Production	42044	32	431				42507	47,8
	b Petroleum Refining	1396	1	9				1406	1,6
	c Manufacture of Solid Fuels and Other Energy Industries	939	1	6				946	1,1
	2 Manufacturing Industries and Construction	**6284**	**14**	**56**				**6354**	**7,2**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6284	14	56				6354	7,2
Sheet 2	**3 Transport**	**11749**	**66**	**344**				**12159**	**13,7**
	a Civil Aviation	235	0	0				235	0,3
	b Road Transportation	10575	62	329				10965	12,3
	c Railways	301	0	3				305	0,3
	d Navigation	638	4	12				654	0,7
	e Pipeline Transport	0	0	0				0	0,0
	4 Other Sectors	**9303**	**165**	**99**				**9567**	**10,8**
	a Commercial/Institutional	1451	7	12				1471	1,7
	b Residential	5463	138	56				5657	6,4
	c Agriculture/Forestry/Fishing	2388	20	34				2443	2,7
	5 Other (please specify)	**53**	**0**	**0**				**53**	**0,1**
	B Fugitive Emissions from Fuels	**378**	**367**	**3**				**748**	**0,8**
	1 Solid Fuels	**0**	**132**	**0**				**132**	**0,1**
	a Coal Mining	0	132	0				132	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**378**	**235**	**3**				**616**	**0,7**
	a Oil	0	2	0				2	0,0
	b Natural Gas	0	212	0				212	0,2
	c Venting and Flaring	378	21	3				402	0,5

Table 2 Sheet 1	**Total Industrial Processes**	**1388**	**2**	**0**	**389**	**3**	**85**	**1868**	**2,1**
	A Mineral Products	**1388**	**2**	**0**	**0**	**0**	**0**	**1390**	**1,6**
	1 Cement Production	1282	0	0	0	0	0	1282	1,4
	2 Lime Production	106	2	0	0	0	0	108	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**10**	**10**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	10	10	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**389**	**3**	**76**	**468**	**0,5**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	141	3	0	144	0,2
	2 Foam Blowing	0	0	0	248	0	0	248	0,3
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	76	76	0,1
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**124**		**0**				**124**	**0,1**
	A Paint Application	75		0				75	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	7		0				7	0,0
	D Other (please specify)	41		0				41	0,0

Table 4 Sheet 1

Total Agriculture		**3911**	**8841**				**12752**	**14,4**
A Enteric Fermentation		**2990**	**0**				**2990**	**3,4**
1 Cattle		2612	0				2612	2,9
2 Buffalo		0	0				0	0,0
3 Sheep		29	0				29	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		8	0				8	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		341	0				341	0,4
9 Poultry		0	0				0	0,0
10 Other (please specify)		0	0				0	0,0
B Manure Management		**921**	**487**				**1408**	**1,6**
1 Cattle		368	0				368	0,4
2 Buffalo		0	0				0	0,0
3 Sheep		2	0				2	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		0	0				0	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		561	0				561	0,6
9 Poultry		16	0				16	0,0
Sheet 2 10 Anaerobic		0	0				0	0,0
11 Liquid Systems		0	71				71	0,1
12 Solid Storage and Dry Lot		0	419				419	0,5
13 Other (please specify)		-26	0				-26	0,0
C Rice Cultivation		**0**	**0**				**0**	**0,0**
1 Irrigated		0	0				0	0,0
2 Rainfed		0	0				0	0,0
3 Deep Water		0	0				0	0,0
4 Other (please specify)		0	0				0	0,0
D Agricultural Soils		**0**	**8355**				**8355**	**9,4**
E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
1 Cereals		0	0				0	0,0
2 Pulse		0	0				0	0,0
3 Tuber and Root		0	0				0	0,0
4 Sugar Cane		0	0				0	0,0
5 Other (please specify)		0	0				0	0,0
G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1

	Total Land-Use Change and Forestry	**-947**	**0**	**0**				**-947**	**-1,1**
	A Changes in Forest and Other Woody Biomass Stocks	**-947**	**0**	**0**				**-947**	**-1,1**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-947	0	0				-947	-1,1
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1304**	**0**				**1304**	**1,5**
	A Solid Waste Disposal on Land	**0**	**1304**	**0**				**1304**	**1,5**
	1 Managed Waste Disposal on Land	0	1304	0				1304	1,5
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFC	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,2852**	**0,2193**	**0,0334**	**0,0000**	**0,0041**	**0,0285**	**0,0000**	**0,0000**	**0,0000**
1 Refrigeration and Air Conditioning Equipment	0,0654	0,0316	0,0012	0,0000	0,0041	0,0285	0,0000	0,0000	0,0000
2 Foam Blowing	0,2198	0,1876	0,0322	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**389,48**	**285,04**	**4,67**	**0,00**	**6,85**	**92,91**	**0,00**	**0,00**	**0,00**
1 Refrigeration and Air Conditioning Equipment	141,06	41,13	0,17	0,00	6,85	92,91	0,00	0,00	0,00
2 Foam Blowing	248,42	243,91	4,51	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1996 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**57996**	**5863**	**9787**	**389**	**3**	**85**	**74124**	**100,0**
-1 Correction for electricity exchange		**-13152**						**-13152**	**-17,7**
0 Correction for outside temperature variation		**-1562**						**-1562**	**-2,1**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**72145**	**647**	**946**				**73737**	**99,5**
A Fuel Combustion		71768	280	942				72990	98,5
B Fugitive Emissions from Fuels		378	367	3				748	1,0
2 Industrial Processes		**1388**	**2**	**0**	**389**	**3**	**85**	**1868**	**2,5**
3 Solvent and Other Product Use		**124**		**0**				**124**	**0,2**
4 Agriculture			**3911**	**8841**				**12752**	**17,2**
5 Land-Use Change & Forestry		**-947**	**0**	**0**				**-947**	**-1,3**
6 Waste		**0**	**1304**	**0**				**1304**	**1,8**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,2852**	**0,2193**	**0,0334**	**0,0000**	**0,0041**	**0,0285**	**0,0000**	**0,0000**	**0,0000**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**389,48**	**285,04**	**4,67**	**0,00**	**6,85**	**92,91**	**0,00**	**0,00**	**0,00**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**62684,9**	**30,92**	**2,92**	**249,73**	**568,96**	**93,87**	**110,08**
A Fuel Combustion Activities (Sectoral Approach)	**62173,3**	**13,11**	**2,91**	**247,02**	**523,34**	**81,69**	**107,88**
1 Energy Industries	**35275,5**	**1,46**	**1,14**	**88,13**	**12,33**	**1,66**	**75,99**
a Public Electricity and Heat Production	33002,0	1,37	1,10	81,31	11,82	1,57	74,81
b Petroleum Refining	1090,8	0,01	0,02	2,00	0,24	0,01	1,17
c Manufacture of Solid Fuels and Other Energy Industries	1182,7	0,08	0,02	4,82	0,27	0,08	0,01
2 Manufacturing Industries and Construction	**6252,9**	**0,69**	**0,18**	**29,39**	**11,65**	**2,86**	**13,19**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6252,9	0,69	0,18	29,39	11,65	2,86	13,19

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**12070,2**	**3,29**	**1,28**	**91,94**	**337,86**	**59,41**	**6,10**
a Civil Aviation	180,6	0,00	0,00	0,64	1,09	0,18	0,01
b Road Transportation	11036,3	3,07	1,24	78,96	330,06	56,85	1,94
c Railways	292,9	0,02	0,01	2,74	0,42	0,17	0,09
d Navigation	560,4	0,19	0,03	9,61	6,29	2,21	4,05
e Pipeline Transport	0,0	0,00	0,00	0,00	0,00	0,00	0,00
4 Other Sectors	**8478,1**	**7,67**	**0,30**	**36,83**	**161,17**	**17,65**	**12,59**
a Commercial/Institutional	1110,5	0,33	0,03	1,25	6,07	0,42	1,83
b Residential	4940,2	6,12	0,16	4,70	133,35	11,09	5,11
c Agriculture/Forestry/Fishing	2427,3	1,22	0,11	30,88	21,75	6,15	5,65
5 Other (please specify)	**96,7**	**0,01**	**0,00**	**0,73**	**0,33**	**0,11**	**0,03**
B Fugitive Emissions from Fuels	**511,6**	**17,81**	**0,01**	**2,71**	**45,62**	**12,18**	**2,20**
1 Solid Fuels	**0,0**	**6,27**	**0,00**	**0,00**	**43,87**	**0,00**	**0,00**
a Coal Mining	0,0	6,27	0,00	0,00	43,87	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**511,6**	**11,54**	**0,01**	**2,71**	**1,75**	**12,18**	**2,20**
a Oil	0,0	0,04	0,00	0,00	0,00	7,76	1,98
b Natural Gas	0,0	10,08	0,00	0,00	0,00	3,66	0,00
c Venting and Flaring	511,6	1,41	0,01	2,71	1,75	0,76	0,22

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

372,52	0,12	0,05	2,64	12,72	2,31	0,06

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**12731,3**	**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**
International Bunkers	**6535,3**	**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**
Aviation	2116,2	0,09	0,00	8,88	1,14	0,84	0,14
Marine	4419,1	0,10	0,28	121,00	10,29	3,24	65,92
CO2 Emissions from Biomass	**6196,0**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1539,3**	**0**	**0**	**0,57**	**0**	**0,57**	**0**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
A Mineral Products	**1539,3**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1425,6	0	0	0	0	0	0		0		0		0
2 Lime Production	113,8	0	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0,57**	**0**	**0**	**0**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0,57	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0006**	**0,0006**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0006	0,0006
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0,57**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0,57	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0120**	**0,0065**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,5280	0,1174	0,0080	0,0011		0
2 Foam Blowing	0	0	0	0	0	0	0	0,3630	0,1553		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0120	0,0065
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	0,7000	0,2001	1300	HFC-402a	0,0100	0,0074	1680	HFC-507a	0,0080	0,0003	3300
HFC-152a	0,0150	0,0164	140	HFC-404a	0,1100	0,0469	3260	Other HFCs	0,0080	0,0003	1725
HFC-401a	0,0260	0,0009	18	HFC-407c	0,0140	0,0005	1526	PFC (C3F8)	0,0080	0,0011	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**122,47**	**0**	**39,30**
A Paint Application	74,41	0	23,88
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,17	0	2,30
D Other (please specify)	40,89	0	13,12

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**182,17**	**27,37**	**0**	**0**	**1,27**
A Enteric Fermentation	**137,98**	**0**	**0**	**0**	**0**
1 Cattle	119,07	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,14	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,70	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	17,07	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**44,18**	**1,45**	**0**	**0**	**0**
1 Cattle	16,75	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,07	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,04	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	28,07	0	0	0	0
9 Poultry	0,72	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,21	0	0	0
12 Solid Storage and Dry Lot	0	1,24	0	0	0
13 Other (please specify)	-1,47	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**25,92**	**0**	**0**	**1,27**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-959,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-959,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -959,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (43 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**59,10**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**59,10**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	59,10	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0	0	0	0	0
2 Domestic and Commercial Wastewater	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**64346,7**	**-959,0**	**272,19**	**30,30**	**250,30**	**568,96**	**144,02**	**110,09**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
1 Energy	**62684,9**		**30,92**	**2,92**	**249,73**	**568,96**	**93,87**	**110,08**						
A Fuel Combustion (Sectoral Approach)	62173,3		13,11	2,91	247,02	523,34	81,69	107,88						
1 Energy Industries	35275,5		1,46	1,14	88,13	12,33	1,66	75,99						
2 Manufacturing Industries and Construction	6252,9		0,69	0,18	29,39	11,65	2,86	13,19						
3 Transport	12070,2		3,29	1,28	91,94	337,86	59,41	6,10						
4 Other Sectors	8478,1		7,67	0,30	36,83	161,17	17,65	12,59						
5 Other (please specify)	96,7		0,01	0,00	0,73	0,33	0,11	0,03						
B Fugitive Emissions from Fuels	511,6		17,81	0,01	2,71	45,62	12,18	2,20						
1 Solid Fuels	0,0		6,27	0,00	0,00	43,87	0,00	0,00						
2 Oil and Natural Gas	511,6		11,54	0,01	2,71	1,75	12,18	2,20						
2 Industrial Processes	**1539,3**		**0,00**	**0,00**	**0,57**	**0,00**	**0,57**	**0,00**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
A Mineral Products	1539,3		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,57	0,00	0,00	0,00		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0006	0,0006
D Other Production	0,0		0,00	0,00	0,00	0,00	0,57	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	0,8910	0,2727	0,0080	0,0011	0,0120	0,0065
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**122,5**		**0,00**	**0,00**	**0,00**	**0,00**	**39,30**	**0,00**						
4 Agriculture	**0,0**		**182,17**	**27,37**	**0,00**	**0,00**	**1,27**	**0,00**						
A Enteric Fermentation	0,0		137,98	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		44,18	1,45	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	25,92	0,00	0,00	1,27	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-959,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,01**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -959,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,01	0,00						
6 Waste	**0,0**		**59,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		59,10	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (43 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**12731,3**	**0,0**	**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**						
International Bunkers	**6535,3**		**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**						
Aviation	2116,2		0,09	0,00	8,88	1,14	0,84	0,14						
Marine	4419,1		0,10	0,28	121,00	10,29	3,24	65,92						
CO2 Emissions from Biomass	**6196,0**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**64346,7**	**-959,0**	**272,19**	**30,30**	**250,30**	**568,96**	**144,02**	**110,09**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**62684,9**		**30,92**	**2,92**	**249,73**	**568,96**	**93,87**	**110,08**						
A Fuel Combustion		62173,3		13,11	2,91	247,02	523,34	81,69	107,88						
B Fugitive Emissions from Fuels		511,6		17,81	0,01	2,71	45,62	12,18	2,20						
2 Industrial Processes		**1539,3**		**0,00**	**0,00**	**0,57**	**0,00**	**0,57**	**0,00**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
3 Solvent and Other Product Use		**122,5**		**0,00**	**0,00**	**0,00**	**0,00**	**39,30**	**0,00**						
4 Agriculture		**0,0**		**182,17**	**27,37**	**0,00**	**0,00**	**1,27**	**0,00**						
5 Land-Use Change & Forestry			**(2) -959,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,01**	**0,00**						
6 Waste		**0,0**		**59,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**12731,3**	**0,0**	**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**						
International Bunkers		**6535,3**		**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**						
Aviation		2116,2		0,09	0,00	8,88	1,14	0,84	0,14						
Marine		4419,1		0,10	0,28	121,00	10,29	3,24	65,92						
CO2 Emissions from Biomass		**6196,0**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (43 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**58811,7**	**-959,0**	**272,19**	**30,30**	**250,30**	**568,96**	**144,02**	**110,09**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
-1 Correction for electricity exchange		**-5995,0**													
0 Correction for outside temperature variation		**460,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**62684,9**		**30,92**	**2,92**	**249,73**	**568,96**	**93,87**	**110,08**						
A Fuel Combustion		62173,3		13,11	2,91	247,02	523,34	81,69	107,88						
B Fugitive Emissions from Fuels		511,6		17,81	0,01	2,71	45,62	12,18	2,20						
2 Industrial Processes		**1539,3**		**0,00**	**0,00**	**0,57**	**0,00**	**0,57**	**0,00**	**0,8910**	**0,2727**	**0,0080**	**0,0011**	**0,0126**	**0,0071**
3 Solvent and Other Product Use		**122,5**		**0,00**	**0,00**	**0,00**	**0,00**	**39,30**	**0,00**						
4 Agriculture		**0,0**		**182,17**	**27,37**	**0,00**	**0,00**	**1,27**	**0,00**						
5 Land-Use Change & Forestry			**(2) -959,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,01**	**0,00**						
6 Waste		**0,0**		**59,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**12731,3**	**0,0**	**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**						
International Bunkers		**6535,3**		**0,19**	**0,28**	**129,89**	**11,44**	**4,08**	**66,06**						
Aviation		2116,2		0,09	0,00	8,88	1,14	0,84	0,14						
Marine		4419,1		0,10	0,28	121,00	10,29	3,24	65,92						
CO2 Emissions from Biomass		**6196,0**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (43 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1997 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**63388**	**5716**	**9390**	**430**	**8**	**170**	**79102**	**100,0**
Table 1 Sheet 1	**Total Energy**	**62685**	**649**	**905**				**64239**	**81,2**
	A Fuel Combustion Activities (Sectoral Approach)	**62173**	**275**	**902**				**63351**	**80,1**
	1 Energy Industries	**35275**	**31**	**353**				**35660**	**45,1**
	a Public Electricity and Heat Production	33002	29	341				33372	42,2
	b Petroleum Refining	1091	0	6				1097	1,4
	c Manufacture of Solid Fuels and Other Energy Industries	1183	2	6				1191	1,5
	2 Manufacturing Industries and Construction	**6253**	**14**	**56**				**6323**	**8,0**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6253	14	56				6323	8,0
Sheet 2	**3 Transport**	**12070**	**69**	**397**				**12536**	**15,8**
	a Civil Aviation	181	0	0				181	0,2
	b Road Transportation	11036	64	384				11485	14,5
	c Railways	293	0	3				296	0,4
	d Navigation	560	4	9				574	0,7
	e Pipeline Transport	0	0	0				0	0,0
	4 Other Sectors	**8478**	**161**	**93**				**8732**	**11,0**
	a Commercial/Institutional	1111	7	9				1127	1,4
	b Residential	4940	129	50				5118	6,5
	c Agriculture/Forestry/Fishing	2427	26	34				2487	3,1
	5 Other (please specify)	**97**	**0**	**0**				**97**	**0,1**
	B Fugitive Emissions from Fuels	**512**	**374**	**3**				**889**	**1,1**
	1 Solid Fuels	**0**	**132**	**0**				**132**	**0,2**
	a Coal Mining	0	132	0				132	0,2
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**512**	**242**	**3**				**757**	**1,0**
	a Oil	0	1	0				1	0,0
	b Natural Gas	0	212	0				212	0,3
	c Venting and Flaring	512	30	3				544	0,7

Table 2 Sheet 1	**Total Industrial Processes**	**1539**	**0**	**0**	**430**	**8**	**170**	**2147**	**2,7**
	A Mineral Products	**1539**	**0**	**0**	**0**	**0**	**0**	**1539**	**1,9**
	1 Cement Production	1426	0	0	0	0	0	1426	1,8
	2 Lime Production	114	0	0	0	0	0	114	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**14**	**14**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	14	14	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**430**	**8**	**156**	**594**	**0,8**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	246	8	0	253	0,3
	2 Foam Blowing	0	0	0	184	0	0	184	0,2
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	156	156	0,2
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**122**		**0**				**122**	**0,2**
	A Paint Application	74		0				74	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	7		0				7	0,0
	D Other (please specify)	41		0				41	0,1

Table 4 Sheet 1

	Total Agriculture		**3826**	**8485**				**12310**	**15,6**
	A Enteric Fermentation		**2898**	**0**				**2898**	**3,7**
	1 Cattle		2500	0				2500	3,2
	2 Buffalo		0	0				0	0,0
	3 Sheep		24	0				24	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		15	0				15	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		358	0				358	0,5
	9 Poultry		0	0				0	0,0
	10 Other (please specify)		0	0				0	0,0
	B Manure Management		**928**	**450**				**1377**	**1,7**
	1 Cattle		352	0				352	0,4
	2 Buffalo		0	0				0	0,0
	3 Sheep		1	0				1	0,0
	4 Goats		0	0				0	0,0
	5 Camels and Llamas		0	0				0	0,0
	6 Horses		1	0				1	0,0
	7 Mules and Asses		0	0				0	0,0
	8 Swine		589	0				589	0,7
	9 Poultry		15	0				15	0,0
Sheet 2	10 Anaerobic		0	0				0	0,0
	11 Liquid Systems		0	65				65	0,1
	12 Solid Storage and Dry Lot		0	384				384	0,5
	13 Other (please specify)		-31	0				-31	0,0
	C Rice Cultivation		**0**	**0**				**0**	**0,0**
	1 Irrigated		0	0				0	0,0
	2 Rainfed		0	0				0	0,0
	3 Deep Water		0	0				0	0,0
	4 Other (please specify)		0	0				0	0,0
	D Agricultural Soils		**0**	**8035**				**8035**	**10,2**
	E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
	F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
	1 Cereals		0	0				0	0,0
	2 Pulse		0	0				0	0,0
	3 Tuber and Root		0	0				0	0,0
	4 Sugar Cane		0	0				0	0,0
	5 Other (please specify)		0	0				0	0,0
	G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1	**Total Land-Use Change and Forestry**	**-959**	**0**	**0**				**-959**	**-1,2**
	A Changes in Forest and Other Woody Biomass Stocks	**-959**	**0**	**0**				**-959**	**-1,2**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	-959	0	0				-959	-1,2
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
	1 Tropical Forests	0	0	0				0	0,0
	2 Temperate Forests	0	0	0				0	0,0
	3 Boreal Forests	0	0	0				0	0,0
	4 Grasslands/Tundra	0	0	0				0	0,0
	5 Other (please specify)	0	0	0				0	0,0
	D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
	E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**
Table 6	**Total Waste**	**0**	**1241**	**0**				**1241**	**1,6**
	A Solid Waste Disposal on Land	**0**	**1241**	**0**				**1241**	**1,6**
	1 Managed Waste Disposal on Land	0	1241	0				1241	1,6
	2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
	1 Industrial Wastewater	0	0	0				0	0,0
	2 Domestic and Commercial Wastewater	0	0	0				0	0,0
	3 Other (please specify)	0	0	0				0	0,0
	C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
	D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,2727**	**0,2001**	**0,0164**	**0,0009**	**0,0074**	**0,0469**	**0,0005**	**0,0003**	**0,0003**
1 Refrigeration and Air Conditioning Equipment	0,1174	0,0600	0,0012	0,0009	0,0074	0,0469	0,0005	0,0003	0,0003
2 Foam Blowing	0,1553	0,1401	0,0152	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**429,84**	**260,13**	**2,29**	**0,02**	**12,38**	**152,86**	**0,75**	**0,92**	**0,48**
1 Refrigeration and Air Conditioning Equipment	245,58	78,00	0,17	0,02	12,38	152,86	0,75	0,92	0,48
2 Foam Blowing	184,26	182,13	2,13	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1997 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**57853**	**5716**	**9390**	**430**	**8**	**170**	**73567**	**100,0**
-1 Correction for electricity exchange		**-5995**						**-5995**	**-8,1**
0 Correction for outside temperature variation		**460**						**460**	**0,6**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**62685**	**649**	**905**				**64239**	**87,3**
A Fuel Combustion		62173	275	902				63351	86,1
B Fugitive Emissions from Fuels		512	374	3				889	1,2
2 Industrial Processes		**1539**	**0**	**0**	**430**	**8**	**170**	**2147**	**2,9**
3 Solvent and Other Product Use		**122**		**0**				**122**	**0,2**
4 Agriculture			**3826**	**8485**				**12310**	**16,7**
5 Land-Use Change & Forestry		**-959**	**0**	**0**				**-959**	**-1,3**
6 Waste		**0**	**1241**	**0**				**1241**	**1,7**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFC	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,2727**	**0,2001**	**0,0164**	**0,0009**	**0,0074**	**0,0469**	**0,0005**	**0,0003**	**0,0003**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**429,84**	**260,13**	**2,29**	**0,02**	**12,38**	**152,86**	**0,75**	**0,92**	**0,48**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 1 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Total Energy	**58567,2**	**47,94**	**2,88**	**232,63**	**595,85**	**90,02**	**76,95**
A Fuel Combustion Activities (Sectoral Approach)	**58146,5**	**32,70**	**2,87**	**230,43**	**563,14**	**79,32**	**75,44**
1 Energy Industries	**31506,2**	**19,56**	**1,01**	**73,08**	**13,44**	**1,68**	**55,18**
a Public Electricity and Heat Production	29246,2	19,46	0,97	66,19	12,66	1,59	54,24
b Petroleum Refining	951,1	0,00	0,02	1,63	0,22	0,00	0,93
c Manufacture of Solid Fuels and Other Energy Industries	1309,0	0,10	0,02	5,27	0,56	0,09	0,01
2 Manufacturing Industries and Construction	**6020,2**	**1,08**	**0,18**	**28,27**	**15,23**	**3,26**	**10,12**
a Iron and Steel	0	0	0	0	0	0	0
b Non-Ferrous Metals	0	0	0	0	0	0	0
c Chemicals	0	0	0	0	0	0	0
d Pulp, Paper and Print	0	0	0	0	0	0	0
e Food Processing, Beverages and Tobacco	0	0	0	0	0	0	0
f Other (please specify)	6020,2	1,08	0,18	28,27	15,23	3,26	10,12

1A 2f-note: Emissions from combustion in (1) boilers, gas turbines and stationary engines and (2) industry mobil sources and machinery.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 2 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
3 Transport	**12421,2**	**3,43**	**1,39**	**89,43**	**322,96**	**56,58**	**5,32**
a Civil Aviation	186,0	0,00	0,00	0,66	1,10	0,18	0,01
b Road Transportation	11519,6	3,19	1,36	78,61	314,45	53,76	2,01
c Railways	247,0	0,02	0,01	2,31	0,35	0,14	0,08
d Navigation	468,6	0,22	0,03	7,85	7,07	2,49	3,21
e Pipeline Transport	0,0	0,00	0,00	0,00	0,00	0,00	0,00
4 Other Sectors	**8087,6**	**8,63**	**0,29**	**38,82**	**211,15**	**17,69**	**4,79**
a Commercial/Institutional	874,9	0,65	0,03	1,26	5,90	0,37	0,47
b Residential	4747,9	5,73	0,15	4,05	158,80	10,64	1,44
c Agriculture/Forestry/Fishing	2464,8	2,25	0,12	33,51	46,45	6,69	2,87
5 Other (please specify)	**111,3**	**0,01**	**0,01**	**0,83**	**0,36**	**0,12**	**0,04**
B Fugitive Emissions from Fuels	**420,6**	**15,24**	**0,01**	**2,20**	**32,70**	**10,70**	**1,51**
1 Solid Fuels	**0,0**	**3,97**	**0,00**	**0,00**	**31,29**	**0,00**	**0,00**
a Coal Mining	0,0	3,97	0,00	0,00	31,29	0,00	0,00
b Solid Fuel Transformation	0	0	0	0	0	0	0
c Other (please specify)	0	0	0	0	0	0	0
2 Oil and Natural Gas	**420,6**	**11,27**	**0,01**	**2,20**	**1,42**	**10,70**	**1,51**
a Oil	0,0	0,04	0,00	0,00	0,00	6,42	1,44
b Natural Gas	0,0	10,08	0,00	0,00	0,00	3,66	0,00
c Venting and Flaring	420,6	1,14	0,01	2,20	1,42	0,62	0,07

1A 3b-note: Concerning emissions from road transport in Denmark the national inventory (CORINAIR) is based on consumption of gasoline and diesel in Denmark.

To get emissions from sale of fuel for road transport the following emissions from border trade of gasoline and diesel have been added to the national consumption:

315,33	0,09	0,04	2,12	8,73	1,70	0,05

1A 5-note: Emissions from military combustion of fuels.

TABLE 1 SECTORAL REPORT FOR ENERGY
(Sheet 3 of 3)

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)							
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2
Memo Items (1)	**12856,8**	**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**
International Bunkers	**6679,3**	**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**
Aviation	2265,1	0,09	0,00	9,49	1,14	0,88	0,14
Marine	4414,2	0,10	0,28	120,99	10,29	3,24	59,86
CO2 Emissions from Biomass	**6177,4**						

(1) Not included in energy totals.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)													
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
Total Industrial Processes	**1436,3**	**0**	**0**	**0,35**	**0**	**0,5**	**0**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
A Mineral Products	**1436,3**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 Cement Production	1332,9	0	0	0	0	0	0		0		0		0
2 Lime Production	103,3	0	0	0	0	0	0		0		0		0
3 Limestone and Dolomite Use	0	0	0	0	0	0	0		0		0		0
4 Soda Ash Production and Use	0	0	0	0	0	0	0		0		0		0
5 Asphalt Roofing	0	0	0	0	0	0	0		0		0		0
6 Road Paving with Asphalt	0	0	0	0	0	0	0		0		0		0
7 Other (please specify)	0	0	0	0	0	0	0		0		0		0
B Chemical Industry	**0**	**0**	**0**	**0,35**	**0**	**0**	**0**		**0**		**0**		**0**
1 Ammonia Production	0	0	0	0	0	0	0		0		0		0
2 Nitric Acid Production	0	0	0	0,35	0	0	0		0		0		0
3 Adipic Acid Production	0	0	0	0	0	0	0		0		0		0
4 Carbide Production	0	0	0	0	0	0	0		0		0		0
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0
C Metal Production	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**	**0,0007**	**0,0007**
1 Iron and Steel Production	0	0	0	0	0	0	0		0		0		0
2 Ferroalloys Production	0	0	0	0	0	0	0		0		0		0
3 Aluminium Production	0	0	0	0	0	0	0		0		0		0
4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	0	0		0		0	0,0007	0,0007
5 Other (please specify)	0	0	0	0	0	0	0		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
								P	A	P	A	P	A
D Other Production	**0**	**0**	**0**	**0**	**0**	**0,5**	**0**		**0**		**0**		**0**
1 Pulp and Paper	0	0	0	0	0	0	0		0		0		0
2 Food and Drink	0	0	0	0	0	0,5	0		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**
1 By-product Emissions	0	0	0	0	0	0	0		0		0		0
2 Fugitive Emissions	0	0	0	0	0	0	0		0		0		0
3 Other (please specify)	0	0	0	0	0	0	0		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0086**	**0,0022**
1 Refrigeration and Air Conditioning Equipment	0	0	0	0	0	0	0	0,7665	0,1381	0,0060	0,0024		0
2 Foam Blowing	0	0	0	0	0	0	0	0,4795	0,1368		0		0
3 Fire Extinguishers	0	0	0	0	0	0	0		0		0		0
4 Aerosols	0	0	0	0	0	0	0		0		0		0
5 Solvents	0	0	0	0	0	0	0		0		0		0
6 Other (please specify)	0	0	0	0	0	0	0		0		0	0,0086	0,0022
G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**		**0**		**0**		**0**

P = Potential emissions based on Tier 1 Approach. A= Actual emissions based on Tier 2 Approach.

2 F-note: The potential and actual emissions of HFCs and PFCs are in accordance with the Revised 1996 IPCC Guidelines calculated from the potential and actual emission of the following chemical species and mixtures consumed and/or emitted in Denmark.

	P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)		P (Gg)	A (Gg)	GWP (Gg CO2-e.)
HFC-134a	1,0010	0,1890	1300	HFC-402a	0,0100	0,0070	1680	HFC-507a	0,0100	0,0020	3300
HFC-152a	0,0330	0,0089	140	HFC-404a	0,1460	0,0530	3260	Other HFCs	0,0140	0,0070	1725
HFC-401a	0,0150	0,0050	18	HFC-407c	0,0170	0,0030	1526	PFC (C3F8)	0,0060	0,0024	7000

2 F6-note: Emissions of SF6 from (1) window plate production, (2) research laboratories and (3) running shoes.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)			
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	N2O	NMVOC
Total Solvent and Other Product Use	**121,13**	**0**	**38,86**
A Paint Application	73,73	0	23,66
B Degreasing and Dry Cleaning	0	0	0
C Chemical Products, Manufacture and Processing	7,02	0	2,25
D Other (please specify)	40,38	0	12,96

The quantity of carbon released in the form of NMVOC is accounted for in both the NMVOC and the CO2 columns.

Note: The Revised 1996 IPCC Guidelines do not provide methodologies for the calculation of emissions of N2O from solvent and other product use. If you have reported such data, you should provide additional information (activity data and emission factors) used to make these estimates.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
Total Agriculture	**183,51**	**27,62**	**0**	**0**	**1,22**
A Enteric Fermentation	**138,07**	**0**	**0**	**0**	**0**
1 Cattle	117,99	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	1,25	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,69	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	18,14	0	0	0	0
9 Poultry	0	0	0	0	0
10 Other (please specify)	0	0	0	0	0
B Manure Management	**45,45**	**1,5**	**0**	**0**	**0**
1 Cattle	16,68	0	0	0	0
2 Buffalo	0	0	0	0	0
3 Sheep	0,07	0	0	0	0
4 Goats	0	0	0	0	0
5 Camels and Llamas	0	0	0	0	0
6 Horses	0,04	0	0	0	0
7 Mules and Asses	0	0	0	0	0
8 Swine	29,66	0	0	0	0
9 Poultry	0,68	0	0	0	0

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)					
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CH4	N2O	NOx	CO	NMVOC
B Manure Management (cont...)					
10 Anaerobic	0	0	0	0	0
11 Liquid Systems	0	0,22	0	0	0
12 Solid Storage and Dry Lot	0	1,29	0	0	0
13 Other (please specify)	-1,68	0	0	0	0
C Rice Cultivation	**0**	**0**	**0**	**0**	**0**
1 Irrigated	0	0	0	0	0
2 Rainfed	0	0	0	0	0
3 Deep Water	0	0	0	0	0
4 Other (please specify)	0	0	0	0	0
D Agricultural Soils	**0**	**26,12**	**0**	**0**	**1,22**
E Prescribed Burning of Savannas	**0**	**0**	**0**	**0**	**0**
F Field Burning of Agricultural Residues (1)	**0**	**0**	**0**	**0**	**0**
1 Cereals	0	0	0	0	0
2 Pulse	0	0	0	0	0
3 Tuber and Root	0	0	0	0	0
4 Sugar Cane	0	0	0	0	0
5 Other (please specify)	0	0	0	0	0
G Other (please specify)	**0**	**0**	**0**	**0**	**0**

Note: The Revised IPCC 1996 Guidelines do not provide methodologies for the calculation of CH4 emissions, and CH4 and N2O removals from agricultural soils, or CO2 emissions from savanna burning or agricultural residues burning. If you have reported such data, you should provide additional information (activity data and emissions factors) used to make these estimates.
B-note: CH4-emissionfactors have been changed to a tier-2 approach based on IPCC-guidelines for cool climate.
In Denmarks Second National Communication temperate climate tier-1 was used.
B13-note: Consumption by biogas plants of CH4 produced by manure management.

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO
Total Land-Use Change and Forestry	**0**	**-973,0**	**0**	**0**	**0**	**0**
A Changes in Forest and Other Woody Biomass Stocks		**-973,0**	**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0	(1) -973,0	0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
B Forest and Grassland Conversion	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
C Abandonment of Managed Lands	**0**		**0**	**0**	**0**	**0**
1 Tropical Forests	0		0	0	0	0
2 Temperate Forests	0		0	0	0	0
3 Boreal Forests	0		0	0	0	0
4 Grasslands/Tundra	0		0	0	0	0
5 Other (please specify)	0		0	0	0	0
D CO2 Emissions and Removals from Soil	**0**		**0**	**0**	**0**	**0**
E Other (please specify)	**0**		**0**	**0**	**0**	**0**

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (57 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)						
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2(1)	CH4	N2O	NOx	CO	NMVOC
Total Waste	**0**	**55,40**	**0**	**0**	**0**	**0**
A Solid Waste Disposal on Land	**0**	**55,40**	**0**	**0**	**0**	**0**
1 Managed Waste Disposal on Land	0	55,40	0	0	0	0
2 Unmanaged Waste Disposal Sites	0	0	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
B Wastewater Handling	**0**	**0,00**	**0**	**0**	**0**	**0**
1 Industrial Wastewater	0	0,00	0	0	0	0
2 Domestic and Commercial Wastewater	0	0,00	0	0	0	0
3 Other (please specify)	0	0	0	0	0	0
C Waste Incineration	**0**	**0**	**0**	**0**	**0**	**0**
D Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**

(1) Note that CO2 from waste disposal and incineration should only be included if it stems from non-biological or inorganic waste sources.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**60124,5**	**-973,0**	**286,86**	**30,50**	**232,98**	**595,85**	**139,62**	**76,95**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
1 Energy	**58567,2**		**47,94**	**2,88**	**232,63**	**595,85**	**90,02**	**76,95**						
A Fuel Combustion (Sectoral Approach)	58146,5		32,70	2,87	230,43	563,14	79,32	75,44						
1 Energy Industries	31506,2		19,56	1,01	73,08	13,44	1,68	55,18						
2 Manufacturing Industries and Construction	6020,2		1,08	0,18	28,27	15,23	3,26	10,12						
3 Transport	12421,2		3,43	1,39	89,43	322,96	56,58	5,32						
4 Other Sectors	8087,6		8,63	0,29	38,82	211,15	17,69	4,79						
5 Other (please specify)	111,3		0,01	0,01	0,83	0,36	0,12	0,04						
B Fugitive Emissions from Fuels	420,6		15,24	0,01	2,20	32,70	10,70	1,51						
1 Solid Fuels	0,0		3,97	0,00	0,00	31,29	0,00	0,00						
2 Oil and Natural Gas	420,6		11,27	0,01	2,20	1,42	10,70	1,51						
2 Industrial Processes	**1436,3**		**0,00**	**0,00**	**0,35**	**0,00**	**0,50**	**0,00**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
A Mineral Products	1436,3		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
B Chemical Industry	0,0		0,00	0,00	0,35	0,00	0,00	0,00		0		0		0
C Metal Production	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0	0,0007	0,0007
D Other Production	0,0		0,00	0,00	0,00	0,00	0,50	0,00		0		0		0
E Production of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0
F Consumption of Halocarbons and Sulphur Hexafluoride	0,0		0,00	0,00	0,00	0,00	0,00	0,00	1,2460	0,2749	0,0060	0,0024	0,0086	0,0022
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00		0		0		0

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

1 A 5-note: Emissions from military combustion of fuels.

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
3 Solvent and Other Product Use	**121,1**		**0,00**	**0,00**	**0,00**	**0,00**	**38,86**	**0,00**						
4 Agriculture	**0,0**		**183,51**	**27,62**	**0,00**	**0,00**	**1,22**	**0,00**						
A Enteric Fermentation	0,0		138,07	0,00	0,00	0,00	0,00	0,00						
B Manure Management	0,0		45,45	1,50	0,00	0,00	0,00	0,00						
C Rice Cultivation	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Agricultural Soils	0,0		0,00	26,12	0,00	0,00	1,22	0,00						
E Prescribed Burning of Savannas	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
F Field Burning of Agricultural Residues	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
G Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
5 Land-Use Change & Forestry	**0,0**	**-973,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,01**	**0,00**						
A Changes in Forest and Other Woody Biomass Stocks	0,0	(1) -973,0	0,00	0,00	0,00	0,00	0,00	0,00						
B Forest and Grassland Conversion	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Abandonment of Managed Lands	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D CO2 Emissions and Removals from Soil	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
E Other (please specify)	0,0		0,00	0,00	0,00	0,00	9,01	0,00						
6 Waste	**0,0**		**55,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
A Solid Waste Disposal on Land	0,0		55,40	0,00	0,00	0,00	0,00	0,00						
B Wastewater Handling	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
C Waste Incineration	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
D Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						
7 Other (please specify)	0,0		0,00	0,00	0,00	0,00	0,00	0,00						

(1) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (57 kt) due to afforestation. According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

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

SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)														
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Memo Items	**12856,8**	**0,0**	**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**						
International Bunkers	**6679,3**		**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**						
Aviation	2265,1		0,09	0,00	9,49	1,14	0,88	0,14						
Marine	4414,2		0,10	0,28	120,99	10,29	3,24	59,86						
CO2 Emissions from Biomass	**6177,4**													

TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
									P	A	P	A	P	A
Total National Emissions and Removals	**60124,5**	**-973,0**	**286,86**	**30,50**	**232,98**	**595,85**	**139,62**	**76,95**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
1 Energy Reference Approach(1)														
1 Energy Sectoral Approach(1)	**58567,2**		**47,94**	**2,88**	**232,63**	**595,85**	**90,02**	**76,95**						
A Fuel Combustion	58146,5		32,70	2,87	230,43	563,14	79,32	75,44						
B Fugitive Emissions from Fuels	420,6		15,24	0,01	2,20	32,70	10,70	1,51						
2 Industrial Processes	**1436,3**		**0,00**	**0,00**	**0,35**	**0,00**	**0,50**	**0,00**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
3 Solvent and Other Product Use	**121,1**		**0,00**	**0,00**	**0,00**	**0,00**	**38,86**	**0,00**						
4 Agriculture	**0,0**		**183,51**	**27,62**	**0,00**	**0,00**	**1,22**	**0,00**						
5 Land-Use Change & Forestry		**(2) -973,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,01**	**0,00**						
6 Waste	**0,0**		**55,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)	**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:	**12856,8**	**0,0**	**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**						
International Bunkers	**6679,3**		**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**						
Aviation	2265,1		0,09	0,00	9,49	1,14	0,88	0,14						
Marine	4414,2		0,10	0,28	120,99	10,29	3,24	59,86						
CO2 Emissions from Biomass	**6177,4**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.

(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.

(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (57 kt) due to afforestation.

According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

TABLE 7B (0) SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES
(Gg)

GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals (0)		**56927,5**	**-973,0**	**286,86**	**30,50**	**232,98**	**595,85**	**139,62**	**76,95**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
-1 Correction for electricity exchange		**-3715,0**													
0 Correction for outside temperature variation		**518,0**													
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**58567,2**		**47,94**	**2,88**	**232,63**	**595,85**	**90,02**	**76,95**						
A Fuel Combustion		58146,5		32,70	2,87	230,43	563,14	79,32	75,44						
B Fugitive Emissions from Fuels		420,6		15,24	0,01	2,20	32,70	10,70	1,51						
2 Industrial Processes		**1436,3**		**0,00**	**0,00**	**0,35**	**0,00**	**0,50**	**0,00**	**1,2460**	**0,2749**	**0,0060**	**0,0024**	**0,0093**	**0,0029**
3 Solvent and Other Product Use		**121,1**		**0,00**	**0,00**	**0,00**	**0,00**	**38,86**	**0,00**						
4 Agriculture		**0,0**		**183,51**	**27,62**	**0,00**	**0,00**	**1,22**	**0,00**						
5 Land-Use Change & Forestry			**(2) -973,0**	**0,00**	**0,00**	**0,00**	**0,00**	**9,01**	**0,00**						
6 Waste		**0,0**		**55,40**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:		**12856,8**	**0,0**	**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**						
International Bunkers		**6679,3**		**0,19**	**0,28**	**130,48**	**11,43**	**4,12**	**60,00**						
Aviation		2265,1		0,09	0,00	9,49	1,14	0,88	0,14						
Marine		4414,2		0,10	0,28	120,99	10,29	3,24	59,86						
CO2 Emissions from Biomass		**6177,4**													

P = Potential emissions based on Tier 1 Approach. A = Actual emissions based on Tier 2 Approach.
(0) Corrected for electricity exchange and outside temperature variation, refer to items -1 and 0 below.
(1) For verification purposes, countries are asked to report the results of their calculations using the Reference Approach and explain any differences with the Sectoral Approach.
Do not include the results of both the Reference Approach and the Sectoral Approach in national totals.
(2) CO2 uptake by forest existing by 1990 plus the uptake since 1990 (57 kt) due to afforestation.
According to the IPPC 1996 guidelines the signs for CO2 uptake (removals) are always (-) and for CO2 emissions (+).

	DENMARK'S 1998 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT								
	SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)								
	GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
	GWP-factor:	1	21	310	Note (1)	7000	23900		
	Total national Emissions and Removals	**59152**	**6024**	**9454**	**455**	**17**	**70**	**75171**	**100,0**
Table 1 Sheet 1	**Total Energy**	**58567**	**1007**	**892**				**60466**	**80,4**
	A Fuel Combustion Activities (Sectoral Approach)	**58147**	**687**	**889**				**59722**	**79,4**
	1 Energy Industries	**31506**	**411**	**313**				**32230**	**42,9**
	a Public Electricity and Heat Production	29246	409	301				29956	39,9
	b Petroleum Refining	951	0	6				957	1,3
	c Manufacture of Solid Fuels and Other Energy Industries	1309	2	6				1317	1,8
	2 Manufacturing Industries and Construction	**6020**	**23**	**56**				**6099**	**8,1**
	a Iron and Steel	0	0	0				0	0,0
	b Non-Ferrous Metals	0	0	0				0	0,0
	c Chemicals	0	0	0				0	0,0
	d Pulp, Paper and Print	0	0	0				0	0,0
	e Food Processing, Beverages and Tobacco	0	0	0				0	0,0
	f Other (please specify)	6020	23	56				6099	8,1
Sheet 2	**3 Transport**	**12421**	**72**	**430**				**12923**	**17,2**
	a Civil Aviation	186	0	0				186	0,2
	b Road Transportation	11520	67	421				12007	16,0
	c Railways	247	0	3				251	0,3
	d Navigation	469	5	9				483	0,6
	e Pipeline Transport	0	0	0				0	0,0
	4 Other Sectors	**8088**	**181**	**90**				**8359**	**11,1**
	a Commercial/Institutional	875	14	9				898	1,2
	b Residential	4748	120	47				4915	6,5
	c Agriculture/Forestry/Fishing	2465	47	37				2549	3,4
	5 Other (please specify)	**111**	**0**	**3**				**115**	**0,2**
	B Fugitive Emissions from Fuels	**421**	**320**	**3**				**744**	**1,0**
	1 Solid Fuels	**0**	**83**	**0**				**83**	**0,1**
	a Coal Mining	0	83	0				83	0,1
	b Solid Fuel Transformation	0	0	0				0	0,0
	c Other (please specify)	0	0	0				0	0,0
	2 Oil and Natural Gas	**421**	**237**	**3**				**660**	**0,9**
	a Oil	0	1	0				1	0,0
	b Natural Gas	0	212	0				212	0,3
	c Venting and Flaring	421	24	3				448	0,6

Table 2 Sheet 1	**Total Industrial Processes**	**1436**	**0**	**0**	**455**	**17**	**70**	**1978**	**2,6**
	A Mineral Products	**1436**	**0**	**0**	**0**	**0**	**0**	**1436**	**1,9**
	1 Cement Production	1333	0	0	0	0	0	1333	1,8
	2 Lime Production	103	0	0	0	0	0	103	0,1
	3 Limestone and Dolomite Use	0	0	0	0	0	0	0	0,0
	4 Soda Ash Production and Use	0	0	0	0	0	0	0	0,0
	5 Asphalt Roofing	0	0	0	0	0	0	0	0,0
	6 Road Paving with Asphalt	0	0	0	0	0	0	0	0,0
	7 Other (please specify)	0	0	0	0	0	0	0	0,0
	B Chemical Industry	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Ammonia Production	0	0	0	0	0	0	0	0,0
	2 Nitric Acid Production	0	0	0	0	0	0	0	0,0
	3 Adipic Acid Production	0	0	0	0	0	0	0	0,0
	4 Carbide Production	0	0	0	0	0	0	0	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
	C Metal Production	**0**	**0**	**0**	**0**	**0**	**17**	**17**	**0,0**
	1 Iron and Steel Production	0	0	0	0	0	0	0	0,0
	2 Ferroalloys Production	0	0	0	0	0	0	0	0,0
	3 Aluminium Production	0	0	0	0	0	0	0	0,0
	4 SF6 Used in Aluminium and Magnesium Foundries	0	0	0	0	0	17	17	0,0
	5 Other (please specify)	0	0	0	0	0	0	0	0,0
Sheet 2	**D Other Production**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 Pulp and Paper	0	0	0	0	0	0	0	0,0
	2 Food and Drink	0	0	0	0	0	0	0	0,0
	E Production of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
	1 By-product Emissions	0	0	0	0	0	0	0	0,0
	2 Fugitive Emissions	0	0	0	0	0	0	0	0,0
	3 Other (please specify)	0	0	0	0	0	0	0	0,0
	F Consumption of Halocarbons and Sulphur Hexafluoride	**0**	**0**	**0**	**455**	**17**	**53**	**525**	**0,7**
	1 Refrigeration and Air Conditioning Equipment	0	0	0	286	17	0	303	0,4
	2 Foam Blowing	0	0	0	169	0	0	169	0,2
	3 Fire Extinguishers	0	0	0	0	0	0	0	0,0
	4 Aerosols	0	0	0	0	0	0	0	0,0
	5 Solvents	0	0	0	0	0	0	0	0,0
	6 Other (please specify)	0	0	0	0	0	53	53	0,1
	G Other (please specify)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0,0**
Table 3 Sheet 1	**Total Solvent and Other Product Use**	**121**		**0**				**121**	**0,2**
	A Paint Application	74		0				74	0,1
	B Degreasing and Dry Cleaning	0		0				0	0,0
	C Chemical Products, Manufacture and Processing	7		0				7	0,0
	D Other (please specify)	40		0				40	0,1

Table 4 Sheet 1

Total Agriculture		**3854**	**8562**				**12416**	**16,5**
A Enteric Fermentation		**2899**	**0**				**2899**	**3,9**
1 Cattle		2478	0				2478	3,3
2 Buffalo		0	0				0	0,0
3 Sheep		26	0				26	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		14	0				14	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		381	0				381	0,5
9 Poultry		0	0				0	0,0
10 Other (please specify)		0	0				0	0,0
B Manure Management		**954**	**465**				**1419**	**1,9**
1 Cattle		350	0				350	0,5
2 Buffalo		0	0				0	0,0
3 Sheep		1	0				1	0,0
4 Goats		0	0				0	0,0
5 Camels and Llamas		0	0				0	0,0
6 Horses		1	0				1	0,0
7 Mules and Asses		0	0				0	0,0
8 Swine		623	0				623	0,8
9 Poultry		14	0				14	0,0
Sheet 2 10 Anaerobic		0	0				0	0,0
11 Liquid Systems		0	68				68	0,1
12 Solid Storage and Dry Lot		0	400				400	0,5
13 Other (please specify)		-35	0				-35	0,0
C Rice Cultivation		**0**	**0**				**0**	**0,0**
1 Irrigated		0	0				0	0,0
2 Rainfed		0	0				0	0,0
3 Deep Water		0	0				0	0,0
4 Other (please specify)		0	0				0	0,0
D Agricultural Soils		**0**	**8097**				**8097**	**10,8**
E Prescribed Burning of Savannas		**0**	**0**				**0**	**0,0**
F Field Burning of Agricultural Residues (1)		**0**	**0**				**0**	**0,0**
1 Cereals		0	0				0	0,0
2 Pulse		0	0				0	0,0
3 Tuber and Root		0	0				0	0,0
4 Sugar Cane		0	0				0	0,0
5 Other (please specify)		0	0				0	0,0
G Other (please specify)		**0**	**0**				**0**	**0,0**

Table 5 Sheet 1

Total Land-Use Change and Forestry	**-973**	**0**	**0**				**-973**	**-1,3**
A Changes in Forest and Other Woody Biomass Stocks	**-973**	**0**	**0**				**-973**	**-1,3**
1 Tropical Forests	0	0	0				0	0,0
2 Temperate Forests	-973	0	0				-973	-1,3
3 Boreal Forests	0	0	0				0	0,0
4 Grasslands/Tundra	0	0	0				0	0,0
5 Other (please specify)	0	0	0				0	0,0
B Forest and Grassland Conversion	**0**	**0**	**0**				**0**	**0,0**
1 Tropical Forests	0	0	0				0	0,0
2 Temperate Forests	0	0	0				0	0,0
3 Boreal Forests	0	0	0				0	0,0
4 Grasslands/Tundra	0	0	0				0	0,0
5 Other (please specify)	0	0	0				0	0,0
C Abandonment of Managed Lands	**0**	**0**	**0**				**0**	**0,0**
1 Tropical Forests	0	0	0				0	0,0
2 Temperate Forests	0	0	0				0	0,0
3 Boreal Forests	0	0	0				0	0,0
4 Grasslands/Tundra	0	0	0				0	0,0
5 Other (please specify)	0	0	0				0	0,0
D CO2 Emissions and Removals from Soil	**0**	**0**	**0**				**0**	**0,0**
E Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Table 6

Total Waste	**0**	**1163**	**0**				**1163**	**1,5**
A Solid Waste Disposal on Land	**0**	**1163**	**0**				**1163**	**1,5**
1 Managed Waste Disposal on Land	0	1163	0				1163	1,5
2 Unmanaged Waste Disposal Sites	0	0	0				0	0,0
3 Other (please specify)	0	0	0				0	0,0
B Wastewater Handling	**0**	**0**	**0**				**0**	**0,0**
1 Industrial Wastewater	0	0	0				0	0,0
2 Domestic and Commercial Wastewater	0	0	0				0	0,0
3 Other (please specify)	0	0	0				0	0,0
C Waste Incineration	**0**	**0**	**0**				**0**	**0,0**
D Other (please specify)	**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**0,2749**	**0,1890**	**0,0089**	**0,0050**	**0,0070**	**0,0530**	**0,0030**	**0,0020**	**0,0070**
1 Refrigeration and Air Conditioning Equipment	0,1381	0,0600	0,0011	0,0050	0,0070	0,0530	0,0030	0,0020	0,0070
2 Foam Blowing	0,1368	0,1290	0,0078	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 F Consumption of Halocarbons and Sulphur Hexafluoride	**454,81**	**245,70**	**1,24**	**0,09**	**11,74**	**172,78**	**4,58**	**6,60**	**12,08**
1 Refrigeration and Air Conditioning Equipment	286,03	78,00	0,16	0,09	11,74	172,78	4,58	6,60	12,08
2 Foam Blowing	168,79	167,70	1,09	0,00	0,00	0,00	0,00	0,00	0,00

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

Table 7B (0)

SHORT SUMMARY OF DENMARK'S 1998 EMISSION INVENTORY AS GWP-VALUES. IPCC 1996 FORMAT									
SECTORAL REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg CO2-equivalents)									
GREENHOUSE GAS SOURCE AND SINK CATEGORI		CO2	CH4	N2O	HFCs	PFCs	SF6	GWP	%
GWP-factor:		1	21	310	Note (1)	7000	23900		
Total National Emissions and Removals (0)		**55955**	**6024**	**9454**	**455**	**17**	**70**	**71974**	**100,0**
-1 Correction for electricity exchange		**-3715**						**-3715**	**-5,2**
0 Correction for outside temperature variation		**518**						**518**	**0,7**
1 Energy	Reference Approach(1)								
	Sectoral Approach(1)	**58567**	**1007**	**892**				**60466**	**84,0**
A Fuel Combustion		58147	687	889				59722	83,0
B Fugitive Emissions from Fuels		421	320	3				744	1,0
2 Industrial Processes		**1436**	**0**	**0**	**455**	**17**	**70**	**1978**	**2,7**
3 Solvent and Other Product Use		**121**		**0**				**121**	**0,2**
4 Agriculture			**3854**	**8562**				**12416**	**17,3**
5 Land-Use Change & Forestry		**-973**	**0**	**0**				**-973**	**-1,4**
6 Waste		**0**	**1163**	**0**				**1163**	**1,6**
7 Other (please specify)		**0**	**0**	**0**				**0**	**0,0**

Note 1: For HFCs the GWP-values has been based on 8 HFCs:

GREENHOUSE GAS SOURCE AND SINK CATEGORI	total HFCs	HFC-134a	HFC-152a	HFC-401a	HFC-402a	HFC-404a	HFC-407c	HFC-507a	Oth HFCs
(Gg)									
2 Industrial Processes	**0,2749**	**0,1890**	**0,0089**	**0,0050**	**0,0070**	**0,0530**	**0,0030**	**0,0020**	**0,0070**
GWP-factor:		1300	140	18	1680	3260	1526	3300	1725
(Gg CO2-equivalents)									
2 Industrial Processes	**454,81**	**245,70**	**1,24**	**0,09**	**11,74**	**172,78**	**4,58**	**6,60**	**12,08**

'Other HFCs' includes HFCs 408a, 409a and 410a; GWP is for 410a

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Appendix 2

Denmark's emission/removal trend tables 1990 – 1998

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TABLE 10 EMISSIONS TRENDS (CO2)
(Sheet 1 of 5)

Denmark

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year(1)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
1. Energy	**0,00**	**51.756,3**	**62.207,6**	**56.761,1**	**58.483,9**	**61.969,4**	**58.911,8**	**72.145,3**	**62.684,9**	**58.567,2**	
A. Fuel Combustion (Sectoral Approach)	0,00	51.516,3	61.713,0	56.250,3	58.039,0	61.528,3	58.577,9	71.767,7	62.173,3	58.146,5	
1. Energy Industries		26.215,7	35.142,4	29.777,9	31.267,9	35.624,1	32.152,7	44.379,2	35.275,5	31.506,2	
2. Manufacturing Industries and Construction		5.776,4	6.113,8	6.217,8	6.167,6	6.486,0	6.039,4	6.283,6	6.252,9	6.020,2	
3. Transport		10.741,4	11.245,0	11.373,4	11.627,8	11.339,2	11.509,7	11.748,9	12.070,2	12.421,2	
4. Other Sectors		8.663,8	8.925,1	8.740,4	8.738,5	8.020,5	8.737,4	9.302,6	8.478,1	8.087,6	
5. Other		119,0	286,8	140,8	237,2	58,5	138,7	53,5	96,7	111,3	
B. Fugitive Emissions from Fuels	0,00	240,0	494,6	510,8	444,9	441,1	333,9	377,6	511,6	420,6	
1. Solid Fuels		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
2. Oil and Natural Gas		240,0	494,6	510,8	444,9	441,1	333,9	377,6	511,6	420,6	
2. Industrial Processes	**0,00**	**1.005,5**	**1.178,1**	**1.300,5**	**1.311,0**	**1.317,8**	**1.311,0**	**1.388,1**	**1.539,3**	**1.436,3**	
A. Mineral Products		1.005,5	1.178,1	1.300,5	1.311,0	1.317,8	1.311,0	1.388,1	1.539,3	1.436,3	
B. Chemical Industry		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
C. Metal Production		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
D. Other Production		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
E. Production of Halocarbons and SF6											
F. Consumption of Halocarbons and SF6											
G. Other		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
3. Solvent and Other Product Use		**131,8**	**130,5**	**129,2**	**133,3**	**126,5**	**125,1**	**123,8**	**122,5**	**121,1**	
4. Agriculture	**0,00**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	
A. Enteric Fermentation		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
B. Manure Management		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
C. Rice Cultivation		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
D. Agricultural Soils (2)		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
E. Prescribed Burning of Savannas		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
F. Field Burning of Agricultural Residues		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
G. Other		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
5. Land-Use Change and Forestry (3)	**0,00**	**-916,0**	**-920,0**	**-923,0**	**-927,0**	**-930,0**	**-934,0**	**-947,0**	**-959,0**	**-973,0**	
A. Changes in Forest and Other Woody Biomass Stocks		-916,0	-920,0	-923,0	-927,0	-930,0	-934,0	-947,0	-959,0	-973,0	
B. Forest and Grassland Conversion		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
C. Abandonment of Managed Lands		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
D. CO2 Emissions and Removals from Soil		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
E. Other		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
6. Waste	**0,00**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	
A. Solid Waste Disposal on Land		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
B. Waste-water Handling		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
C. Waste Incineration		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
D. Other		0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
7. Other (please specify)	**0,00**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	**0,0**	
Total Emissions/Removals with LUCF (4)	**0,00**	**51.977,7**	**62.596,2**	**57.267,7**	**59.001,1**	**62.483,7**	**59.413,9**	**72.710,3**	**63.387,7**	**59.151,5**	
Total Emissions without LUCF(4)	**0,00**	**52.893,7**	**63.516,2**	**58.190,7**	**59.928,1**	**63.413,7**	**60.347,9**	**73.657,3**	**64.346,7**	**60.124,5**	
Memo Items:											
International Bunkers	**0,00**	**4.986,2**	**4.507,4**	**4.677,2**	**6.040,7**	**6.736,4**	**7.090,2**	**6.882,8**	**6.535,3**	**6.679,4**	
Aviation		1.926,9	1.783,6	1.844,9	1.741,4	1.911,0	1.959,3	2.065,3	2.116,2	2.265,1	
Marine		3.059,4	2.723,8	2.832,4	4.299,4	4.825,3	5.130,8	4.817,5	4.419,1	4.414,2	
Multilateral Operations											
CO2 Emissions from Biomass		**4.198,3**	**4.498,6**	**4.852,5**	**4.996,7**	**4.819,8**	**5.471,0**	**6.059,7**	**6.196,0**	**6.177,4**	

(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 CO2 emissions and removals from Land-Use Change and Forestry.

TABLE 10 EMISSIONS TRENDS (CH4)
(Sheet 2 of 5)

Denmark

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year(1)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
					(Gg)						
Total Emissions	**0,00**	**278,49**	**280,73**	**280,77**	**285,36**	**282,13**	**281,02**	**279,21**	**272,19**	**286,87**	
1. Energy	**0,00**	**23,24**	**25,40**	**25,59**	**26,14**	**28,42**	**30,02**	**30,79**	**30,93**	**47,95**	
A. Fuel Combustion (Sectoral Approach)	0,00	10,81	11,68	11,75	11,69	11,44	12,60	13,32	13,12	32,71	
1. Energy Industries		1,07	1,29	1,24	1,26	1,39	1,56	1,62	1,46	19,56	
2. Manufacturing Industries and Construction		0,62	0,65	0,64	0,66	0,75	0,63	0,67	0,69	1,08	
3. Transport		2,72	2,85	2,91	2,98	3,11	3,12	3,15	3,29	3,43	
4. Other Sectors		6,39	6,87	6,95	6,78	6,19	7,28	7,88	7,67	8,63	
5. Other		0,01	0,02	0,01	0,01	0,00	0,01	0,00	0,01	0,01	
B. Fugitive Emissions from Fuels	0,00	12,43	13,72	13,84	14,45	16,98	17,42	17,47	17,81	15,24	
1. Solid Fuels		3,30	3,87	3,94	4,74	5,58	6,27	6,27	6,27	3,97	
2. Oil and Natural Gas		9,13	9,85	9,90	9,71	11,40	11,15	11,20	11,54	11,27	
2. Industrial Processes	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**1,30**	**1,31**	**0,09**	**0,00**	**0,00**	
A. Mineral Products		0,00	0,00	0,00	0,00	1,30	1,31	0,09	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	
C. Metal Production		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	
E. Production of Halocarbons and SF6											
F. Consumption of Halocarbons and SF6											
G. Other		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**	
4. Agriculture	**0,00**	**192,85**	**191,63**	**190,38**	**194,52**	**186,91**	**186,99**	**186,23**	**182,16**	**183,52**	
A. Enteric Fermentation		150,10	148,64	146,36	148,06	142,63	142,52	142,38	137,98	138,07	
B. Manure Management		42,75	42,99	44,02	46,46	44,28	44,47	43,85	44,18	45,45	
C. Rice Cultivation		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	
E. Prescribed Burning of Savannas		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	
G. Other		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**	
A. Changes in Forest and Other Woody Biomass Stocks		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
B. Forest and Grassland Conversion		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
C. Abandonment of Managed Lands		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
D. CO2 Emissions and Removals from Soil		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	
6. Waste	**0,00**	**62,40**	**63,70**	**64,80**	**64,70**	**65,50**	**62,70**	**62,10**	**59,10**	**55,40**	
A. Solid Waste Disposal on Land		62,40	63,70	64,80	64,70	65,50	62,70	62,10	59,10	55,40	
B. Waste-water Handling		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	
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**	
Memo Items:											
International Bunkers	**0,00**	**0,15**	**0,14**	**0,15**	**0,17**	**0,19**	**0,21**	**0,20**	**0,19**	**0,19**	
Aviation		0,08	0,08	0,08	0,07	0,08	0,09	0,09	0,09	0,09	
Marine		0,07	0,06	0,07	0,10	0,11	0,12	0,11	0,10	0,10	
Multilateral Operations											
CO2 Emissions from Biomass											

TABLE 10 EMISSIONS TRENDS (N2O)
(Sheet 3 of 5)

Denmark

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year(1)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
Total Emissions	**0,00**	**34,92**	**34,60**	**32,48**	**32,90**	**32,21**	**32,01**	**31,57**	**30,28**	**30,51**	
1. Energy	**0,00**	**1,83**	**2,26**	**2,16**	**2,30**	**2,53**	**2,55**	**3,05**	**2,91**	**2,89**	
A. Fuel Combustion (Sectoral Approach)	0,00	1,83	2,25	2,15	2,29	2,52	2,54	3,04	2,90	2,88	
1. Energy Industries		0,87	1,15	0,99	1,04	1,16	1,05	1,43	1,14	1,01	
2. Manufacturing Industries and Construction		0,18	0,19	0,18	0,18	0,20	0,18	0,18	0,18	0,18	
3. Transport		0,47	0,58	0,67	0,76	0,88	1,00	1,11	1,28	1,39	
4. Other Sectors		0,31	0,32	0,31	0,30	0,28	0,30	0,32	0,30	0,29	
5. Other		0,00	0,01	0,00	0,01	0,00	0,01	0,00	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	
1. Solid Fuels		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	
2. Industrial Processes	**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	
B. Chemical Industry		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		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
E. Production of Halocarbons and SF6											
F. Consumption of Halocarbons and SF6											
G. Other		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**	
4. Agriculture	**0,00**	**33,09**	**32,34**	**30,32**	**30,60**	**29,68**	**29,46**	**28,52**	**27,37**	**27,62**	
A. Enteric Fermentation		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
B. Manure Management		1,49	1,51	1,55	1,60	1,60	1,57	1,57	1,45	1,50	
C. Rice Cultivation		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
D. Agricultural Soils		31,60	30,83	28,77	29,00	28,08	27,89	26,95	25,92	26,12	
E. Prescribed Burning of Savannas		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	
G. Other		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**	
A. Changes in Forest and Other Woody Biomass Stocks		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
B. Forest and Grassland Conversion		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
C. Abandonment of Managed Lands		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
D. CO2 Emissions and Removals from Soil		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	
6. Waste	**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		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
B. Waste-water Handling		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	
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**	
Memo Items:											
International Bunkers	**0,00**	**0,25**	**0,22**	**0,23**	**0,32**	**0,31**	**0,33**	**0,30**	**0,28**	**0,28**	
Aviation		0,05	0,05	0,05	0,05	0,00	0,00	0,00	0,00	0,00	
Marine		0,20	0,17	0,18	0,27	0,31	0,33	0,30	0,28	0,28	
Multilateral Operations											
CO2 Emissions from Biomass											

TABLE 10 EMISSION TRENDS (HFCs, PFCs and SF6) Denmark
(Sheet 4 of 5)

Submission 2000

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year(1)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	(Gg)										
Emissions of HFCs(5) - CO2 equivalent (Gg)	**0,00**	**0,00**	**0,39**	**3,82**	**95,93**	**133,57**	**243,56**	**389,48**	**429,84**	**454,81**	
HFC-23											
HFC-32		0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0000	0,0003	0,0042	
HFC-41											
HFC-43-10mee											
HFC-125		0,0000	0,0000	0,0000	0,0000	0,0005	0,0046	0,0150	0,0255	0,0328	
HFC-134											
HFC-134a		0,0000	0,0003	0,0026	0,0705	0,0953	0,1597	0,2204	0,2022	0,1927	
HFC-152a		0,0000	0,0000	0,0030	0,0302	0,0467	0,0446	0,0334	0,0165	0,0095	
HFC-143											
HFC-143a		0,0000	0,0000	0,0000	0,0000	0,0005	0,0044	0,0148	0,0245	0,0286	
HFC-227ea											
HFC-236fa											
HFC-245ca											
Emissions of PFCs(5) - CO2 equivalent (Gg)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,14**	**0,98**	**3,15**	**7,91**	**16,94**	
CF4											
C2F6											
C 3F8		0,0000	0,0000	0,0000	0,0000	0,0000	0,0001	0,0005	0,0011	0,0024	
C4F10											
c-C4F8											
C5F12											
C6F14											
Emissions of SF6(5) - CO2 equivalent (Gg)	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	
SF6											

Chemical	GWP
HFCs	
HFC-23	11700
HFC-32	650
HFC-41	150
HFC-43-10mee	1300
HFC-125	2800
HFC-134	1000
HFC-134a	1300
HFC-152a	140
HFC-143	300
HFC-143a	3800
HFC-227ea	2900
HFC-236fa	6300
HFC-245ca	560
PFCs	
CF4	6500
C2F6	9200
C 3F8	7000
C4F10	7000
c-C4F8	8700
C5F12	7500
C6F14	7400
SF6	23900

(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 CO2 equivalent emissions in order to facilitate data flow among spreadsheets.

TABLE 10 EMISSION TRENDS (SUMMARY)
(Sheet 5 of 5)

Denmark

Submission 2000

GREENHOUSE GAS EMISSIONS	Base year(1)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	CO2 equivalent (Gg)										
Net CO2 emissions/removals	0,00	51.977,7	62.596,2	57.267,7	59.001,1	62.483,7	59.413,9	72.710,3	63.387,7	59.151,5	
CO2 emissions (without LUCF) (6)	0,00	52.893,7	63.516,2	58.190,7	59.928,1	63.413,7	60.347,9	73.657,3	64.346,7	60.124,5	
CH4	0,00	5.848,3	5.895,3	5.896,2	5.992,6	5.924,7	5.901,4	5.863,4	5.716,0	6.024,2	
N2O	0,00	10.825,2	10.726,0	10.068,8	10.199,0	9.985,1	9.923,1	9.786,7	9.386,8	9.457,2	
HFCs	0,00	0,0	0,4	3,8	95,9	133,6	243,6	389,5	429,8	454,8	
PFCs	0,00	0,0	0,0	0,0	0,0	0,1	1,0	3,2	7,9	16,9	
SF6	0,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
Total (with net CO2 emissions/removals)	**0,00**	**68.651,1**	**79.217,9**	**73.236,5**	**75.288,6**	**78.527,2**	**75.483,0**	**88.753,0**	**78.928,2**	**75.104,7**	
Total (without CO2 from LUCF) (6)	**0,00**	**69.567,1**	**80.137,9**	**74.159,5**	**76.215,6**	**79.457,2**	**76.417,0**	**89.700,0**	**79.887,2**	**76.077,7**	

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	Base year(1)	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	CO2 equivalent (Gg)										
1. Energy	0,00	52.811,7	63.441,6	57.968,0	59.745,8	63.350,5	60.332,7	73.737,4	64.236,5	60.469,1	
2. Industrial Processes	0,00	1.005,5	1.178,5	1.304,3	1.406,9	1.478,8	1.583,1	1.782,7	1.977,1	1.908,0	
3. Solvent and Other Product Use	0,00	131,8	130,5	129,2	133,3	126,5	125,1	123,8	122,5	121,1	
4. Agriculture	0,00	14.307,8	14.049,6	13.397,2	13.570,9	13.125,9	13.059,4	12.752,0	12.310,1	12.416,1	
5. Land-Use Change and Forestry (7)	0,00	-916,0	-920,0	-923,0	-927,0	-930,0	-934,0	-947,0	-959,0	-973,0	
6. Waste	0,00	1.310,4	1.337,7	1.360,8	1.358,7	1.375,5	1.316,7	1.304,1	1.241,1	1.163,4	
7. Other	0,00	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	

(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.

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Appendix 3

Information on Greenland and the Faroe Islands

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CO_2 emissions in Greenland and the Faroe Islands

There are no total greenhouse inventories for Greenland and the Faroe Islands at present.

However, there are preliminary figures for CO_2 emissions during the 1990 to 1998 period. See the table below. The sources of CO_2 emissions in Greenland and the Faroe Islands are fossil fuels. It has not been possible to distribute emissions by sector in the IPCC format. The CO_2 emission from fossil fuel is expected to be the most important source of greenhouse gases both in Greenland and the Faroe Islands.

As shown in the table, CO_2 emissions in Greenland and the Faroe Islands were nearly equal in 1990, and just over 600 Gg. Since then, Greenlands CO_2 emissions have fallen by 10 %, and that of the Faroe Islands by 1 % up to 1998.

In 1999, projects in environment and energy statistics have been launched in Greenland, which are to improve Greenland's statistics on emissions – including figures on emissions and possible uptake of greenhouse gasses. The possibilites for corresponding improvement in statistics and greenhouse gas inventories in the Faroe Islands will be investigated.

	Greenland		**Faroe Islands**	
	Gg CO_2	**Change in %** In compare to 1990	**Gg CO_2**	**Change in %** In compare to 1990
1990	624		634	
1991	609	-2	586	-8
1992	594	-5	657	4
1993	-	-	597	-6
1994	494	-21	531	-16
1995	548	-12	616	-3
1996	576	-8	602	-5
1997	593	-5	610	-4
1998	561	-10	629	-1

Preliminary estimation of CO_2 emissions in Greenland and the Faroe Islands 1990 –1998.

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Appendix 4

Emission factors used for fuel combustion (an overview table)

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Emission factors used for fuel combustion:

Sector	Fuel	Valid in period	Sulphur %	SO_2 kg/GJ	NO_x kg/GJ	CO_2 kg/GJ	N_2O kg/GJ	CH_4 kg/GJ	NMVOC kg/GJ	CO kg/GJ
Public Power	Coal	1972-82	1.00	0.714	0.400	95.0	0.0030	0.0015	0.0015	0.010
		1983-97	se note	see note	see note					
	Orimulsion	1995-	2.70	1.337	0.240	80.0	0.0020	0.0030	0.0030	0.015
	Waste	1972-97	0.24	0.156	0.150	18.95	0.0040	0.0060	0.0090	0.010
	Straw	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.150
	Wood	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.100
	Energy crops	1972-97	0.10	0.047	0.100	0.0	0.0020	0.0015	0.0015	0.012
	Petroleum coke	1972-97		0.680	0.200	102.0	0.0030	0.0015	0.0015	0.010
	Residual oil	1972-77	2.50	1.238	0.240	78.0	0.0020	0.0030	0.0030	0.015
		1978-88	2.30	1.139						
		1989-97	0.90	0.446						
	Diesel oil	1972-85	0.50	0.234	0.300	74.0	0.0020	0.0015	0.0015	0.012
		1986-88	0.30	0.141						
		1989-95	0.20	0.094						
		1996-	0.05	0.023						
	Natural gas	1972-97		0.0003	0.240	56.9	0.0010	0.0025	0.0025	0.020
Decentral power plants	Coal	1972-88	1.00	0.649	0.200	95.0	0.0030	0.0150	0.0150	0.010
		1989-97	0.90	0.584						
	Waste	1972-97		0.156	0.150	18.95	0.0040	0.0060	0.0090	0.010
	Straw	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.150
	Wood	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.100
	Energy crops	1972-97	0.10	0.047	0.100	0.0	0.0020	0.0015	0.0015	0.012
	Residual oil	1972-85	2.35	1.163	0.150	78.0	0.0020	0.0030	0.0030	0.015
		1986-88	1.45	0.718						
		1989-96	1.00	0.495						
		1997-04	0.70	0.347						
		2005-	0.50	0.248						
	Gas oil	1972-85	0.50	0.234	0.100	74.0	0.0020	0.0015	0.0015	0.012
		1986-88	0.30	0.141						
		1989-95	0.20	0.094						
		1996-97	0.05	0.023	0.100					
		1998-			0.052					
	Natural gas	1972-97		0.0003	0.150	56.9	0.0010	0.3600	0.0040	0.013
		1998-			0.102					
District heating plants	Coal	1972-88	1.00	0.649	0.200	95.0	0.0030	0.0150	0.0150	0.010
		1989-97	0.90	0.584						
	Waste	1972-97	0.24	0.156	0.150	18.95	0.0040	0.0060	0.0090	0.010
	Straw	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.150
	Wood	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.100
	Energy crops	1972-97	0.10	0.047	0.100	0.0	0.0020	0.0015	0.0015	0.012
	Residual oil	1972-85	2.35	1.163	0.150	78.0	0.0020	0.0030	0.0030	0.015
		1986-88	1.45	0.718						
		1989-96	1.00	0.495						
		1997-04	0.70	0.347						
		2005-	0.50	0.248						
	Gas oil	1972-85	0.50	0.234	0.100	74.0	0.0020	0.0015	0.0015	0.012
		1986-88	0.30	0.141						
		1989-95	0.20	0.094						
		1996-97	0.05	0.023	0.100					
		1998-			0.052					
	Natural gas	1972-97		0.0003	0.150	56.9	0.0010	0.0040	0.0040	0.013
		1998-			0.031					
Industrial combustion	Coal	1972-88	1.00	0.649	0.200	95.0	0.0030	0.0150	0.0150	0.010
		1989-97	0.90	0.584						
	Straw	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.150
	Wood	1972-97		0.025	0.130	0.0	0.0040	0.0320	0.0480	0.100
	Petroleum coke	1972-97		0.680	0.200	102.0	0.0030	0.0015	0.0015	0.010
	Residual oil	1972-85	2.35	1.163	0.150	78.0	0.0020	0.0030	0.0030	0.015
		1986-88	1.45	0.718						
		1989-96	1.00	0.495						
		1997-04	0.70	0.347						
		2005-	0.50	0.248						
	Gas oil	1972-85	0.50	0.234	0.100	74.0	0.0020	0.0015	0.0015	0.012
		1986-88	0.30	0.141						
		1989-95	0.20	0.094						
		1996-97	0.05	0.023	0.100					
		1998-			0.052					
	LPG	1972-97	0.00	0.000	0.100	65.0	0.0010	0.0009	0.0021	0.013
	Natural gas	1972-97		0.0003	0.100	56.9	0.0010	0.0040	0.0040	0.013
		1998-			0.031					

Sector	Fuel	Valid in period	Sulphur %	SO_2 kg/GJ	NO_x kg/GJ	CO_2 kg/GJ	N_2O kg/GJ	CH_4 kg/GJ	NMVOC kg/GJ	CO kg/GJ
Residential & Service burners	Straw	1972-97		0.025	0.050	0.0	0.0030	0.4000	0.6000	10.000
	Wood	1972-97		0.025	0.050	0.0	0.0030	0.4000	0.6000	10.000
	Petroleum coke	1972-97		0.680	0.050	102.0	0.0030	0.0015	0.0015	1.000
	Gas oil	1972-85	0.50	0.234	0.050	74.0	0.0020	0.0070	0.0030	0.020
		1986-88	0.30	0.141						
		1989-95	0.20	0.094						
		1996-	0.05	0.023	0.050					
	Kerosene	1972-97	0.01	0.005	0.050	72.0	0.0020	0.0070	0.0030	0.020
	LPG	1972-97	0.00	0.000	0.100	65.0	0.0010	0.0009	0.0021	0.025
	Town gas	1972-97			0.050	53.9	0.0010	0.0050	0.0050	0.025
	Natural gas	1972-97		0.0003	0.050	56.9	0.0010	0.0050	0.0050	0.025
		1998			0.031					
Road transport	Diesel oil	1972-85	0.50	0.234	0.224	74.0	0.0042	0.0028	0.0635	0.2735
	(Passenger car)	1986-88	0.30	0.141						
		1989-90	0.20	0.094						
		1991	0.20	0.092	0.226		0.0044	0.0030	0.0624	0.2707
		1992	0.13	0.059	0.228		0.0044	0.0030	0.0600	0.2652
		1993	0.05	0.023	0.230		0.0045	0.0031	0.0590	0.2623
		1994			0.214		0.0048	0.0031	0.0552	0.2580
		1995			0.211		0.0048	0.0032	0.0530	0.2536
		1996			0.208		0.0050	0.0030	0.0504	0.2493
		1997			0.193		0.0050	0.0035	0.0467	0.2374
		1999	0.005	0.002						
		2005			0.180			0.0032	0.0277	0.1697
		2010			0.146			0.0030	0.0202	0.1510
	Diesel oil	1972-85	0.50	0.234	0.340	74.0	0.0052	0.0020	0.0797	0.3743
	(light duty vehicle)	1986-88	0.30	0.141						
		1989-90	0.20	0.094						
		1991	0.20	0.092	0.340		0.0052	0.0020	0.0802	0.3751
		1992	0.13	0.059	0.339		0.0052	0.0020	0.0794	0.3740
		1993	0.05	0.023	0.339		0.0051	0.0020	0.0798	0.3746
		1994			0.295		0.0052	0.0020	0.0832	0.3730
		1995			0.273		0.0051	0.0020	0.0813	0.3570
		1996			0.252		0.0050	0.0020	0.0794	0.3421
		1997			0.234		0.0049	0.0020	0.0785	0.3286
		1999	0.005	0.002						
		2005			0.202			0.0018	0.0616	0.1820
		2010			0.170			0.0017	0.0367	0.1144
	Diesel oil	1972-85	0.50	0.234	0.925	74.0	0.0028	0.0086	0.1060	0.2454
	(heavy duty vehicle)	1986-88	0.30	0.141						
		1989-90	0.20	0.094						
		1991	0.20	0.092	0.925		0.0029	0.0086	0.1062	0.2448
		1992	0.13	0.059	0.925		0.0028	0.0086	0.1065	0.2447
		1993	0.05	0.023	0.922		0.0029	0.0086	0.1063	0.2437
		1994			0.884		0.0029	0.0083	0.1017	0.2321
		1995			0.853		0.0029	0.0084	0.0993	0.2217
		1996			0.824		0.0029	0.0084	0.0966	0.2132
		1997			0.791		0.0028	0.0084	0.0886	0.1962
		1999	0.005	0.002						
		2005			0.464			0.0084	0.0524	0.1144
		2010			0.280			0.0084	0.0318	0.0726
	Gasoline (road) &	1972-90	0.01	0.005	0.861	73.0	0.0024	0.0342	1.1558	6.8344
	Gasoline(military)	1991			0.818		0.0036	0.0339	1.0880	6.4761
		1992			0.784		0.0047	0.0330	1.0163	6.0343
		1993			0.742		0.0058	0.0330	0.9556	5.6973
		1994			0.678		0.0075	0.0322	0.8555	5.1054
		1995			0.627		0.0088	0.0318	0.7814	4.6995
		1996			0.581		0.0099	0.0317	0.7180	4.3708
		1997			0.499		0.0117	0.0320	0.6568	3.7347
		2005			0.178		0.0183	0.0196	0.2003	1.3856
		2010			0.083		0.0192	0.0146	0.0493	0.7283
	Biofuel	2005		0	0.178	0.0	0.0183	0.0196	0.2003	1.3856
	Natural gas (road)	1972-97		0.0003	0.898	56.9	0.0020	0.0192	0.3585	1.610
	LPG (road)	1972-97	0.00	0.000	0.898	65.0	0.0020	0.0192	0.3585	1.610

Sector	Fuel	Valid in period	Sulphur %	SO_2 kg/GJ	NO_x kg/GJ	CO_2 kg/GJ	N_2O kg/GJ	CH_4 kg/GJ	NMVOC kg/GJ	CO kg/GJ
Other mobile sources	Residual oil (sea)	1972-91	3.00	1.485	1.394	78.0	0.0049	0.0018	0.0569	0.183
		1992	1.80	0.891						
		1993	2.42	1.197						
		1994	2.60	1.287						
		1995	2.79	1.381						
		1996	2.54	1.242						
		1997	2.75	1.346						
	Diesel oil (off-road)	1972-85	0.50	0.234	1.280	74.0	0.0031	0.0043	0.1852	0.422
		1986-88	0.30	0.141						
		1989-95	0.20	0.094						
		1996-97	0.05	0.023	1.280				0.1852	
		2005	0.005	0.002						
		2010			0.951				0.1370	
	Diesel oil (fishery)	1972-88	1.00	0.468	1.335	74.0	0.0047	0.0017	0.0545	0.173
		1989-97	0.20	0.094						
	Diesel oil (railway)	1972-85	0.50	0.234	0.691	74.0	0.0020	0.0048	0.0432	0.103
		1986-88	0.30	0.141						
		1989-92	0.20	0.094						
		1993-04	0.05	0.023						
		2000	0.005	0.002						
	Diesel oil (sea)	1972-97	1.00	0.468	1.335	74.0	0.0047	0.0017	0.0545	0.173
	LPG off-road	1972-97	0.00	0.000	1.249	65.0	0.0020	0.0203	0.3849	0.443
	Gasoline off-road	1972-97	0.01	0.005	0.194	73.0	0.0017	0.2537	3.1008	23.456
	Gasoline (air)	1972-97	0.01	0.005	0.861	73.0	0.0024	0.0342	1.1558	6.834
	J.P.1 (air-LTO)	1972-94	0.01	0.005	0.291	72.0	0.0020	0.0044	0.0416	0.205
		1995			0.292			0.0045	0.0419	0.206
		1996			0.286			0.0034	0.0320	0.189
		1997			0.291			0.0034	0.0321	0.191
Refineries	Refinery gas	1972-97	0.00	0.000	0.060	56.9	0.0010	0.0040	0.0040	0.013
	Natural gas,turbine	1972-97		0.000	0.150	56.9	0.0010	0.0185	0.0100	0.027
		1998			0.182					
	Natural gas,flared	1972-97	0.00	0.000	0.308	56.9	0.0005	0.0051	0.0026	0.026
	Residual oil	1972-97	(note)	2.081	0.150	78.0	0.0020	0.0030	0.0030	0.015
International transport	Residual oil (sea)	1972-91	3.50	1.733	2.153	78.0	0.0049	0.0018	0.0569	0.183
		1992	2.88	1.426						
		1993	3.12	1.544						
		1994	3.04	1.504						
		1995	3.30	1.635						
		1996	3.36	1.645						
		1997	3.39	1.657						
	Diesel oil (sea)	1972-97	1.00	0.468	1.335	74.0	0.0047	0.0017	0.0545	0.173
	J.P.1 (air-cruise)	1972-97	0.01	0.005	0.297	72.0	0.0020	0.0028	0.0260	0.020

Note: SO_2 and NO_x emissions from power plants for 1983-97 are measured and not calculated with emission factors.
SO_2 emissions from refineries for 1980-97 are measured and not calculated with emission factors.
If no emission factor is shown it means: equal to the number above.

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Appendix 5

Description of the CORINAIR inventory programme

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The CORINAIR emission inventory system

CORINAIR (COoRdination of Information on AIR emissions) is the most extensive European air emission inventory programme for national sector-wise emission estimations. 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 (CORINAIR, 1996). A list of all sub-sectors on the most detailed level is given in appendix 3.

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 appendix 4. The requirements for emission information to other international bodies, such as the HELCOM- (Helsinki Convention) and OSPARCOM (Oslo-Paris Convention) conventions and the EU monitoring mechanism for CO_2 and other greenhouse gases, are also met in terms of the emission components comprised in CORINAIR.

This chapter provides an administrative overview of the CORINAIR emission inventory system, its methodology structure and the emission components included. The basis is the CORINAIR 1994 level of the emission inventory programme. External emission calculation models are furthermore described for road traffic and other mobile sources and machinery.

Administrative overview

The CORINAIR emission inventory system has been developed by the European Union. From start it was part of the EU (DG XI) Corine (COoRdination d'INformation Environmentale) programme set up by the Council of Ministers in 1985 (Decision 85/338/EEC). The first CORINAIR inventory covered the three pollutants: SO_2, NO_x and VOC (Volatile Organic Compounds) for the year 1985. The EU-12 countries at that time participated in this first pan European inventory. The second inventory (for the year 1990) was expanded to a number of 29 countries and the emission components SO_2, NO_x, NMVOC (Non Methane Volatile Organic Compounds), CH_4, CO, CO_2, N_2O and NH_3 (EEA 1995).

From 1994 the EEA has become in charge of the CORINAIR inventory programme and national estimates have been requested every year. At present, the inventory programme comprises the eight emission components mentioned above as well as nine trace metals and nine persistent organic pollutants (POP's). The trace metals are as, Cd, Cr, Cu, Hg, Ni, Pb, Se and Zn. The POP's are: hexachlorocyclohexane (HCH), pentachlorophenol (PCP), hexachlorobenzene (HCB), tetrachloromethane (TCM), trichloroethylene (TRI), tetrachloroethylene (PER), trichlorobenzene (TCB), trichloroethene (TCE), dioxins, furanes and polycyclic aromatic hydrocarbons (PAH). The European inventories can be consulted on the EEA website (http://www.eea.eu.int/). The 1994, 1995 and 1996 CORINAIR inventories have been carried out by 19 countries: the EU-15, Estonia, Iceland, Liechtenstein, Norway and Switzerland. The 1998 inventory will be carried out by 35 countries: the EU-15, the Phare 13, Croatia, Cyprus, Iceland, Liechtenstein, Malta, Norway and Switzerland.

The European work with environmental data is organised by the EEA in several European Topic Centres (ETC's). Each ETC is responsible for gathering information at European level concerning specific environmental subjects or environmental compartments. For emissions to the atmosphere the ETC/AE (European Topic Centre on Air Emissions) is lead by the Umweltbundesamt (UBA) in

Germany, with partners from the UK (AEA Technology), The Netherlands (TNO), Austria (UBA), France (Citepa), Italy (ENEA) and Denmark (Risø National Laboratory).

The EEA has also made a network of National Focal Points (NFP's), one for each country. The NFP's are responsible for the country's overall organisation of environmental information. In Denmark the NFP is NERI (National Environmental Research Institute) in Silkeborg. For Denmark the NFP has organised the work in National Reference Centres (NRC's), one for each environmental subject or area. The Department of Policy Analysis at NERI is appointed to cover the Danish emissions to the atmosphere. In general the Danish NRC's cover the same environmental themes as the European ETC's. This means that the Danish CORINAIR inventories are submitted both to the ETC/AE and to the Danish NFP. The Danish air emission inventories can be found on http://www.dmu.dk and http://nfp-dk.eionet.eu.int.

Copies of the annual air emission inventories are also handed out to the Danish Environmental Protection Agency (Danish EPA) and the Danish Energy Agency (Danish EA). All international conventions, with Denmark as a party, are signed by the Danish government and the responsibility of the national air emission data is in the hands of the Danish EPA. In addition the Danish EA ensures consistency between their own data and the energy data behind the CORINAIR inventories.

The CORINAIR structure

Basically the emissions are calculated in the CORINAIR database as activities times emission factors. An activity can be explained as a number, describing a specific process that generates emissions. Examples of activities are: energy use by gasoline passenger cars, numbers of poultry or paint application. The emission factor is referred to the activity as grams of emission per activity unit.

The CORINAIR methodology describes the emission inventory process and the connected CORINAIR software is used both to store data for activities and emission factors and to make emission calculations at different levels (CORINAIR, 1996). To provide a solid basis for the emission estimates, data for activities and emission factors must be collected on a national scale. If Danish emission factors are missing from some sources, default emission factors are suggested by the methodology.

In CORINAIR the emissions can be calculated at different levels of aggregation, the so-called SNAP levels (Selected Nomenclature for Air Pollution, Chang and Fontelle, 1996). Furthermore all the emission sources are regarded as either point sources or area sources. The large point sources are defined from a list of specific conditions, leaving the remaining sources to be area sources.

Main categories in CORINAIR

The first CORINAIR SNAP level (SNAP level 1) consists of 11 main physical sectors. The main categories are divided into a second level (SNAP level 2) with a total number of around 50 categories. These are furthermore split into around 350 different categories on the third and most detailed level. SNAP level 3 can furthermore be disaggregated into "Annex rubrics", if data on activities and emission factors are available.

All activities are defined in SNAP codes (Selected Nomenclature for Air Pollution, Chang and Fontelle, 1996). The 11 main categories are shown in table 1 with their SNAP codes.

Table 1 The 11 main CORINAIR categories

SNAP code	Category description
1	Combustion in energy and transformation industries
2	Non-industrial combustion plants
3	Combustion in manufacturing industry
4	Production processes
5	Extraction and distribution of fossil fuels / geothermal energy
6	Solvent and other product use
7	Road transport
8	Other mobile sources and machinery
9	Waste treatment and disposal
10	Agriculture and forestry, land use and wood stock change
11	Nature

The first category mainly comprises the emissions from fuel combustion in large power plants generating power. The emissions from district heating plants related to fuel combustion are also comprised in this category (also using waste as a fuel) together with the emissions from refineries, gas works and oil and gas extraction. SNAP category 2 deals with the emissions from fuel combustion in non-industrial plants. These plants generates heat and power on smaller scales both for commercial, institutional and residential use and energy for use in agriculture, forestry and aquaculture. Category 3 covers all emissions from combustion in the industry (to generate production energy), while category 4 comprises the emissions directly related to the production process.

SNAP category 5 deals with all emissions (mainly evaporative emissions) from the extraction and distribution of fossil fuels and geothermal energy. The evaporative emissions originating from the use of solvents and other products are estimated in category 6. All transport emissions, i.e. the emissions from road traffic vehicles together with the emissions from trains, ships and air craft, are covered by SNAP category 7 and 8. The latter SNAP category also comprises the emissions from motorised equipment in industry, forestry, agriculture, household and gardening. Both SNAP groups only deals with the emissions from combustion engines. The emissions that arise from electric power generation for electric vehicles (cars or trains) or electric engines are accounted for at the power plant.

Emissions from waste treatment and disposal are estimated in SNAP category 9. In Denmark most of the waste is burned in district heating plants (SNAP category 2). The major part of the emissions from SNAP 9 stems from the treatment of wastewater and dumps (evaporation) and off shore flaring.

Category 10 covers all emissions from agriculture and forestry, land use and wood stock change. In this category there are many different emission sources. Examples are: cultures (with or without fertilizers), livestock and its manure, and the biomass changes in different types of managed vegetation. The last category 11 comprises the emissions from all natural (non-managed) sources such as forest fires, volcano eruptions or evaporative emissions from vegetation.

All 11 SNAP groups are listed on SNAP level 3 in appendix 1. As an example the sector "Combustion in energy and transformation industries" (SNAP code 01) is shown at the second SNAP level in table 2 and the sub-sector "Public power" (SNAP code 0101) is disaggregated on the third SNAP code level in table 3.

Table 2 SNAP level 2 for Combustion in energy and transformation industries

SNAP code	Combustion in energy and transformation industries
01 01	Public power
01 02	District heating plants
01 03	Petroleum refining plants
01 04	Solid fuel transformation plants
01 05	Coal mining, oil / gas extraction, pipeline compressors

Table 3 SNAP level 3 for Public power

SNAP code	Public power
01 01 01	Combustion plants ∃ 300 MW (boilers)
01 01 02	Combustion plants ∃ 50 and < 300 MW (boilers)
01 01 03	Combustion plants < 50 MW (boilers)
01 01 04	Gas turbines
01 01 05	Stationary engines

No calculations have been made on "Annex rubric" level in any of the "Public power" sub-sectors. This very detailed emission level is mainly used in SNAP group 8 "Other mobile sources and machinery" to differentiate between aircraft types and equipment used in agriculture, forestry, industry, household and gardening.

Large point sources and area sources

The emission sources are divided into large point sources (LPS) and area sources in the CORINAIR methodology.

The LPSs have major contributions to the total air pollution for a large number of emission components. This is also true for Denmark. In order to reduce these emissions Danish reduction plans have been decided as a part of international agreements. For this use a detailed LPS registration must be carried out to make the LPS emissions calculations as precise as possible. The following LPS criteria in CORINAIR have been defined (Chang and Fontelle, 1996) based on the international agreements:

- Combustion plants with thermal capacities ≥50 MW
- Refineries
- Workshops included in integrated steel plants with production capacities $\geq 3.10^6$ tonnes steel/year
- Sulphuric acid plants
- Nitric acid plants
- Paper pulp production plants with capacities ≥ 100.000 tonnes/year of paper pulp
- Painting car plants with capacities ≥ 100.000 passenger cars/year

- International airports with LTO cycle numbers ≥ 100.000/year
- Plants with stack tops ≥ 100 m
- Plants with annual emissions ≥ 1.000 tonnes/year of SO_2, NO_x, NMVOC or NH_3
- Plants of specific interest

Detailed LPS registrations and emission calculations are also made to support the work with emission dispersion models including atmospheric transport modelling and the transformation and deposition of chemical compounds. Finally the main European air polluters can be located, if the LPS's are registered.

Traffic emission sub models in CORINAIR

In CORINAIR the traffic emission calculations are carried out in two main categories: Road traffic (SNAP group 07) and Other sources and machinery (SNAP group 08). As an external part of CORINAIR a computer programme has been developed to calculate the road traffic emissions.

The remaining transport activity takes place in the off road traffic sector. This category comprises sea transport, fishery, air traffic, railways and military. Also other mobile sources and machinery such as machinery used in industry, forestry, agriculture and household and gardening are included in this sector. At present no special emission models are made in the framework of EEA to calculate the off road emissions. Instead calculation models have been developed at NERI especially to estimate these emissions.

Road traffic

The vehicles used in road traffic are: passenger cars, light duty vehicles, heavy duty vehicles and two wheelers. The vehicle types are shown in table 4 at SNAP level 2. A further division is made into urban, rural and highway driving at SNAP level 3, see appendix 1. For the period 1975-1989, the calculation of the emissions from road traffic is based on the statistical energy consumption from the Danish Energy Agency combined with aggregated emission factors.

Table 4 SNAP level 2 for road traffic

SNAP level 2	Road traffic
07 01	Passenger cars
07 02	Light duty vehicles < 3.5 tonnes
07 03	Heavy duty vehicles > 3.5 tonnes and buses
07 04	Mopeds and Motorcycles < 50 cm^3
07 05	Motorcycles > 50 cm^3
07 06	Gasoline evaporation from vehicles
07 07	Automobile tyre and brake wear

For the years 1990 onwards, the calculation of emissions from road traffic is more detailed, using the COPERT II (Computer Programme to calculate the Emissions from Road Transport) model, see

Ahlvik et al., (1997). COPERT II has been developed and is currently being updated for the European Environmental Agency. The model is used by many countries, which ensures consistent and transparent calculation methods at European level. The COPERT calculation results are automatically exported to the CORINAIR database.

COPERT II takes into account the composition of the vehicle fleet, the annual mileage driven and the specific emission factors per driven kilometre in urban, rural and highway traffic. Information on the vehicle fleet and the annual mileage is obtained from the Danish Road Directorate. The number of passenger cars is split into categories taking into account the type of fuel used, the emission legislation level and the engine size. The number of light and heavy duty vehicles are split into categories characterised by the fuel type, the emission legislation level and the gross vehicle weight.

Subsequently the hot emissions are estimated by combining the yearly traffic of the sub-categories with the emission factors of urban, rural and highway driving. The estimations of the cold start emissions (of private cars and vans) are based on the cold/hot emission relation and every month's driving with a cold engine. The evaporative emissions; running loss, soak and diurnal loss are also estimated for the petrol vehicles (SNAP group 0706). The estimation is based on the total driving, the number of trips, the maximum and minimum day-temperature of the month and temperature dependent evaporation factors.

In order to assess the calculation procedure and the emission results the COPERT model creates a fuel balance. The fuel consumption is calculated and compared with the statistical fuel data from the Danish Energy Agency. A reasonable small difference between the statistical and calculated energy consumption is requested. To obtain this small difference the annual mileage is regulated in the different vehicle classes. The emissions are then repeatedly calculated following an iterative procedure.

Off road emission models

The off road sector is divided into several sub-sectors; sea transport, fishery, air traffic, railways, military, industry, forestry, agriculture and household and gardening. The emission calculations are very detailed for air traffic and the sectors: industry, forestry, agriculture and household and gardening. In these two cases models have been developed at NERI to calculate the emissions according to the CORINAIR guidelines.

Emission model for air traffic

Following the CORINAIR guidelines (CORINAIR, 1996) a Danish air traffic emission calculation model is developed at NERI. The basic model principle is to combine relevant air traffic statistics, energy use and emission factors. The CORINAIR methodology prescribes a differentiation between Landing and Take Off (LTO) and cruise for both national and international air transport on basis of the fuel bunkered in Danish airports. The CORINAIR categories are shown in table 5 on SNAP level 3. The Annex rubric level gives a further division of the air traffic emissions into different aircraft types.

The air traffic activity in Denmark takes place mainly at Copenhagen airport but also in a number of small provincial airports. The activity in Copenhagen airport exceeds 100.000 LTO's per year. According to the CORINAIR methodology it is therefore a large point source of air emissions. The provincial airports are treated as area sources.

Table 5 SNAP level 3 for air traffic

SNAP level 3	Air traffic
08 05 01	Domestic airport traffic (LTO cycles < 1000 m)
08 05 02	International airport traffic (LTO cycles < 1000 m)
08 05 03	Domestic cruise traffic (> 1000 m)
08 05 04	International cruise traffic (> 1000 m)

Air traffic statistics

Using the statistic sources Copenhagen Airport (1999) and Statistics Denmark (1999) the air traffic activity in Danish airports can be divided into the number of LTOs carried out by different aircraft. Due to a lack of statistics, it is assumed, that all domestic LTOs in Copenhagen airport and all large aircraft activity in the provincial airports are carried out by only one aircraft type (Fokker F50). Furthermore, it is assumed that all domestic traffic takes place between Copenhagen and the provincial airports.

Energy and emission factors

The duration of the different parts of a LTO cycle is defined by The International Civil Air Organisation (ICAO). The LTO cycle simulates the air traffic activity below 3000 ft during approach, landing, taxi traffic, take off and climb out. For engine certification purposes modal measurements are made for large aircraft during the test cycle. Emissions of CO, VOC, NO_x, and the fuel consumption are measured. From this overall emission and energy factors can be calculated.

For LTOs the emission and fuel consumption factors are taken from an environmental impact study in Copenhagen Airport (Copenhagen Airport, 1996). Especially for VOC the split in NMVOC and CH_4 is taken from CORINAIR (1996) together with the emission factors during the cruise phase. Small aircraft do not have to meet any emission standards. Therefore no consistent emission factors are available for these air craft types. Instead emission factors for all pollutants are estimated by using the fuel related emission factors for non catalytic cars. The emission data comes from the COPERT model.

Energy use by LTO and cruise

An overall fuel allocation to the LTO and cruise activity has been made to calculate the emissions for both domestic and international traffic. The fuel allocation has been made separately for Copenhagen Airport and the provincial airports. The energy use is calculated for both domestic and international LTO activity, by multiplying the fuel consumption factor for each aircraft type with the corresponding number of LTOs. The next step is to calculate the total energy use by domestic and international cruise. The cruise energy is the difference between the total fuel sold for aviation in Denmark and the total calculated fuel used for LTOs.

The cruise energy use is finally distributed to the various aircraft types in domestic and international cruise traffic. This is done by multiplying the total energy use for cruise with the fraction of the total number of LTOs for each aircraft type in domestic and international cruise, respectively.

Energy use and emissions in Copenhagen airport

According to the CORINAIR methodology, Copenhagen airport is considered as a large point source. The energy used in Copenhagen airport is divided into the domestic and international LTOs and the cruise activity. This is done for all of the various aircraft types as described in the previous paragraph.

For small aircraft no relevant LTO fuel consumption factor is available and therefore the total energy use is allocated to the energy use under domestic and international LTOs.

In order to calculate the energy use and the emissions for domestic and international LTOs, the number of LTOs for each aircraft type is multiplied by the respective energy use/emission per LTO. The cruise emissions are estimated by combining the allocated cruise fuel consumption per aircraft type with the fuel related cruise emission factors.

Energy use and emissions in provincial airports

The provincial airports are regarded as area sources. The energy use is split into the domestic and international energy use by large aircraft (LTOs and cruise) and small aircraft (LTOs). The LTO energy use and emissions are calculated as the number of LTOs times the respective energy use or emission per LTO for each aircraft type. The cruise emissions are estimated by combining the allocated cruise fuel consumption per aircraft type with the fuel related cruise emission factors.

Emission model for inland waterways, industry, forestry, agriculture and household

The off road machinery used in the sectors inland waterways, industry, forestry, agriculture and household is very differentiated regarding engine sizes and combustion principles. Many small size two or four stroke gasoline vehicles and machines are present in the sector, but in terms of quantity diesel is most frequently used as a fuel. The CORINAIR SNAP categories are shown in table 6 on SNAP level 2. The many vehicle types and their different emissions are accounted for by using Annex rubrics.

Table 6 SNAP level 2 for other mobile sources and machinery

SNAP level 2	Other mobile sources and machinery
08 03	Inland waterways
08 06	Agriculture
08 07	Forestry
08 08	Industry
08 09	Household and gardening

The emissions are estimated following the guidelines in CORINAIR (1996). In order to calculate the total emissions, information regarding the stock of different machine types and their respective load factors, engine sizes, annual working hours and emission factors is combined.

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). The emission factors are taken from Thomsen (1996) and CORINAIR (1996).

In the Danish EPA (1992 and 1993) the total fuel consumption of diesel oil, gasoline and LPG is also estimated. This fuel consumption is used to make an overall energy balance with the statistically sold energy within the off-road sector given by the Danish EA. An energy correction is made by regulating the annual working hours used for the vehicle stock in the calculations.

Other off road emission sources

The remaining transport emissions estimated in "Other mobile sources and machinery" stem from sea transport and fishery, railways and military. The CORINAIR SNAP categories are shown in table 7.

Table 7 SNAP codes for remaining off road categories

SNAP codes	Remaining off road categories
08 01	Military
08 02	Railways
08 04	Maritime activities
08 04 02	National sea traffic within the EMEP area
08 04 03	National fishing
08 04 04	International sea traffic (international bunkers)

Sea transport and fishery

According to the CORINAIR definitions the marine activity is determined by the fuel sold in the Danish ports. Furthermore the sea traffic is defined as either national or international depending on the destination of the vessels in question. In this context the transport is considered national, if the fuel is bunkered in a Danish port by a vessel going to another Danish port. If the fuel is bunkered in a Danish port by a vessel with a destination outside Denmark, the transport is defined as international. The vessels used for sea transport and fishery are mainly equipped with medium speed engines using diesel oil with a moderate sulphur content or slow speed engines using residual oil with a relatively high content of sulphur. The emission factors used in the calculations are taken from CORINAIR (1996) and Lloyd's (1995).

Railways

To calculate the railway emissions, emission factors from the COPERT model are combined with the total diesel consumption given by the Danish EA. Fuel-related emission factors are used for heavy duty diesel vehicles at highway driving conditions.

Military

The emissions from the Danish military activity are calculated by multiplying the fuel consumption and fuel related emission factors. The fuel consumption is made up by the Danish Energy Agency and the emission factors used are aggregated from the COPERT model.

Activity data

In CORINAIR data for activities are used together with emission factors to calculate the emissions from all sources. The major activity behind the emissions from the SNAP categories 1, 2, 3, 7 and 8 is the fuel consumption. In these sectors emissions are formed during combustion processes that transform fuel into power, heat or propulsion. The SNAP category 4 activities are the number of units produced by the specific industry branches. In SNAP category 5 the activities are defined as the mass or volume of fossil fuel and geothermal energy during extraction and distribution, while the activities in SNAP categories 6 and 9 are the amounts of solvent and waste, respectively. In SNAP category 10 the cultivated areas and the number of animals are the activities, while the area of forests, wetlands etc. are examples of activities behind SNAP category 11.

In this chapter the important parts of the Danish activity data will be described in further details. Special attention will be given to describe the major statistics for fuel consumption, the use of solvents and the number of animals as these activities generate the dominant part of the total emissions. All the activities used in the inventories can be found on http://nfp-dk.eionet.eu.int./

Fuel consumption

To establish the basis for fuel consumption activity the national energy statistics from the Danish Energy Agency are used together with information on fuel consumption by large point sources. Data on this latter fuel consumption are mostly reported by the Danish EA, while in some cases the data are submitted by the large point sources themselves. The fuel consumed by area sources is calculated by subtracting the fuel consumption by large point sources from the national energy statistics.

The fuel consumption can be summarised in three categories; solid, liquid and gaseous fuel consumption. The solid fuels are coal and coke together with wood, straw and waste, with coal as the most dominant energy source at the large power plants. In 1996 Denmark exported a large amount electricity, which resulted in an increase in the coal consumption. The liquid fuels include fuel oil, orimulsion, gasoline, diesel, gas oil and LPG. The gaseous fuels are natural gas, biogas and refinery gas.

The road traffic and other mobile sector stand for a major part of the Danish liquid fuel consumption, especially when motor gasoline and diesel oil are concerned. The liquid fuels: orimulsion, LPG, gas oil and residual oil are mainly used to generate power and heat for different purposes. The fuel used for international transportation by ships and aircraft is not included in the statistics, while the fuel statistics for road transport are based on consumption of gasoline and diesel in Denmark.

There has been a remarkable increase in the natural gas use since the mid 1980s. By that time natural gas was given a target role in the national energy supply system for power and heat generation.

Solvent use

Evaporative emissions from solvent use have large contributions to the national NMVOC totals. In order to estimate these emissions properly, it is important to gather statistics on solvent use. The amount of solvent used is reported to the Danish EPA by the Danish companies. The information is given as a part of an agreement between the Danish Industry and the Danish Environmental Protection Agency. The aim of the solvent use reduction plan is to reduce the emissions by 40% in year 2000 based on the 1988 emissions (NERI, 1998). 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. Consequently not all emissions from solvents are included in the Danish CORINAIR inventories and efforts are still to be made in the future inventory work to improve the emission estimates.

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.

Livestock

The livestock and its manure are almost solely responsible for the Danish ammonia emissions and also contribute significantly to the total methane emissions load. The annual mean livestock number in different animal categories is used as activity data. To estimate the emissions the different mean livestock numbers are used together with emission factors (gram of emissions per animal per year).

Not only the livestock numbers are important for the ammonia emission calculations. The handling (storage and spreading) of the manure as well as the construction of the farms will also have an impact on the final emission result.

The livestock numbers are difficult to estimate, since they vary during the year. The official statistics cover considerable livestock changes in the agricultural sector: animals are slaughtered and new are raised during the year and a certain animal import/export takes place. To ensure consistency and comparable estimates also published data on livestock is used from Statistics Denmark (1997).

The number of cattle (dairy cows and other cattle) has decreased since 1975, whereas the number of pigs (fattening pigs and sows) has increased slightly, as has the number of poultry's (laying hens, broilers and other poultry). Other livestock, which includes horses, ovines and fur animals is at about the same level since 1975.

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Appendix 6

List of all CORINAIR sub-sectors

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01	COMBUSTION IN ENERGY AND TRANSFORMATION INDUSTRIES	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
01 01	**Public power**																					
01 01 01	Combustion plants >= 300 MW (boilers)	**M**	**M**	x	x	x	**M**	**X**	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 01 02	Combustion plants >= 50 and < 300 MW (boilers)	**X**	x	(x)	(x)	(x)	**X**	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 01 03	Combustion plants < 50 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 01 04	Gas turbines	(x)	x	(x)	(x)	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
01 01 05	Stationary engines	x	x	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 02	**District heating plants**																					
01 02 01	Combustion plants >= 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 02 02	Combustion plants >= 50 and < 300 MW (boilers)	**X**	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 02 03	Combustion plants < 50 MW (boilers)	**X**	x	(x)	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 02 04	Gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
01 02 05	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 03	**Petroleum refining plants**																					
01 03 01	Combustion plants >= 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 03 02	Combustion plants >= 50 and < 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 03 03	Combustion plants < 50 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 03 04	Gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
01 03 05	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 03 06	Process furnaces	**X**	x	x	x	x	**X**	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 04	**Solid fuel transformation plants**																					
01 04 01	Combustion plants >= 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 04 02	Combustion plants >= 50 and < 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 04 03	Combustion plants < 50 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 04 04	Gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
01 04 05	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 04 06	Coke oven furnaces	x	x	x	x	x	**X**	x	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 04 07	Other (coal gasification, liquefaction, ...)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 05	**Coal mining, oil / gas extraction, pipeline compressors**																					
01 05 01	Combustion plants >= 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 05 02	Combustion plants >= 50 and < 300 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 05 03	Combustion plants < 50 MW (boilers)	x	x	(x)	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
01 05 04	Gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
01 05 05	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
01 05 06	Pipeline compressors	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

TRI: trichloroethylene, PER: tetrachloroethylene, DIOX: dioxins, PAH: Polyaromatic hydrocarbons

02	NON-INDUSTRIAL COMBUSTION PLANTS	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	No_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
02 01	**Commercial and institutional plants**																					
02 01 01	Combustion plants >= 300 MW (boilers)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
02 01 02	Combustion plants >= 50 and < 300 MW (boilers)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
02 01 03	Combustion plants < 50 MW (boilers)	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
02 01 04	Stationary gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
02 01 05	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
02 01 06	Other stationary equipment's	x	x	x	(x)	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
02 02	**Residential plants**																					
02 02 01	Combustion plants >= 50 MW (boilers)	x	x	x	(x)	(x)	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	x	x
02 02 02	Combustion plants < 50 MW (boilers)	**M**	**X**	**X**	**X**	**M**	**M**	**X**	(x)	x	x	x	x	x	x	x	x	x	-	-	x	x
02 02 03	Gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
02 02 04	Stationary engines	x	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
02 02 05	Other equipment (stoves, fireplaces, cooking,...)	x	x	x	x	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	x	x
02 03	**Plants in agriculture, forestry and aquaculture**																					
02 03 01	Combustion plants >= 50 MW (boilers)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
02 03 02	Combustion plants < 50 MW (boilers)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
02 03 03	Stationary gas turbines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
02 03 04	Stationary engines	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
02 03 05	Other stationary equipment	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

03	COMBUSTION IN MANUFACTURING INDUSTRY	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		Ox	Ox	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Kr	Cu	Hg	Ni	PBX	Se	Zen	TRI	PER	DIOX	PAH
03 01	**Comb. in boilers, gas turbines and stationary engines**																					
03 01	Combustion plants >= 300 MW (boilers)	**X**	**X**	(x)	(x)	x	**X**	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
03 01 02	Combustion plants >= 50 and < 300 MW (boilers)	**X**	**X**	(x)	(x)	x	**X**	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
03 01 03	Combustion plants < 50 MW (boilers)	**X**	**X**	x	x	x	**X**	**X**	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
03 01 04	Gas turbines	(x)	x	(x)	(x)	(x)	x	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)
03 01 05	Stationary engines	x	x	(x)	(x)	(x)	x	(x)	(x)	x	x	x	x	x	x	x	x	x	-	-	-	x
03 01 06	Other stationary equipment	x	x	x	x	x	x	x	(x)	x	x	x	x	x	x	x	x	x	-	-	(x)	x
03 02	**Process furnaces without contact**																					
03 02 03	Blast furnace cowpers	x	x	(x)	(x)	x	**X**	x	-	x	x	x	x	x	x	x	x	x	-	-	-	x
03 02 04	Plaster furnaces	x	x	x	(x)	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-	x
03 02 05	Other furnaces	(x)	(x)	(x)	-	(x)	(x)	x	-	x	x	x	x	x	x	x	x	x	-	-	(x)	x
03 03	**Processes with contact**																					
03 03 01	Sinter plants	**X**	**X**	x	x	**X**	x	(x)	(x)	x	x	x	x	(x)	x	x	(x)	x	-	-	x	x
03 03 02	Reheating furnaces steel and iron	x	x	(x)	(x)	x	x	x	-	x	x	x	x	(x)	x	x	(x)	x	-	-	(x)	x
03 03 03	Gray iron foundries	(x)	(x)	(x)	(x)	**X**	x	(x)	-	x	x	x	-	-	x	x	-	x	-	-	(x)	x
03 03 04	Primary lead production	x	(x)	(x)	-	(x)	(x)	-	-	x	x	-	x	(x)	-	x	-	x	-	-	-	(x)
03 03 05	Primary zinc production	x	(x)	(x)	-	(x)	(x)	-	-	x	x	-	x	(x)	-	x	-	x	-	-	-	(x)
03 03 06	Primary copper production	x	(x)	(x)	-	x	(x)	-	-	x	x	-	x	(x)	-	x	-	x	-	-	(x)	-
03 03 07	Secondary lead production	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	-	-	-	-	x	-	x	-	-	-	(x)
03 03 08	Secondary zinc production	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	-	-	x	-	x	-	x	-	-	-	-
03 03 09	Secondary copper production	(x)	(x)	(x)	-	(x)	(x)	-	-	x	(x)	-	x	-	-	(x)	-	(x)	-	-	(x)	-
03 03 10	Secondary aluminium production	(x)	(x)	(x)	-	(x)	(x)	-	-	-	x	-	-	-	-	-	-	-	-	-	(x)	x
03 03 11	Cement (f)	x	**X**	(x)	(x)	x	**X**	x	-	x	x	x	x	x	x	x	x	x	-	-	(x)	x
03 03 12	Lime (incl.. iron and steel and paper pulp industry)	x	x	(x)	-	x	x	-	-	x	x	x	-	x	x	x	x	x	-	-	(x)	x
03 03 13	Asphalt concrete plants	x	(x)	(x)	-	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
03 03 14	Flat glass	x	x	(x)	-	(x)	x	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-
03 03 15	Container glass (f)	x	x	(x)	-	(x)	x	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-
03 03 16	Glass wool (except binding) (f)	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-
03 03 17	Other glass (f)	(x)	x	(x)	-	(x)	(x)	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-
03 03 18	Mineral wool (except binding)	(x)	(x)	(x)	-	(x)	(x)	-	-	x	x	x	x	x	x	x	x	x	-	-	-	-
03 03 19	Bricks and tiles	x	x	(x)	-	x	x	x	-	x	x	x	x	x	x	x	x	x	-	-	-	-
03 03 20	Fine ceramic materials	x	x	(x)	-	x	x	x	-	(x)	(x)	-	-	-	-	(x)	(x)	-	-	-	-	-
03 03 21	Paper-mill industry (drying processes)	x	(x)	(x)	(x)	(x)	x	x	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
03 03 22	Aluminium production	(x)	(x)	(x)	-	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
03 03 23	Magnesium production (dolomite treatment)	(x)	-	-	-	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
03 03 24	Nickel production (thermal process)	(x)	(x)	(x)	-	(x)	(x)	(x)	-	-	-	-	-	-	x	-	-	-	-	-	(x)	-
03 03 25	Enamel production	(x)	(x)	(x)	-	(x)	(x)	(x)	-	x	x	-	-	-	-	x	-	x	-	-	-	-
03 03 26	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	(x)	(x)	(x)

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

04	PRODUCTION PROCESSES	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
04 01	**Processes in petroleum industries**																					
04 01 01	Petroleum products processing	x	x	x	(x)	(x)	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 01 02	Fluid catalytic cracking - CO boiler	x	x	(x)	-	(x)	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)
04 01 03	Sulphur recovery plants	x	-	(x)	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)
04 01 04	Storage and handling of petroleum prod.. in refinery	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)
04 01 05	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
04 02	**Processes in iron and steel industries and collieries**																					
04 02 01	Coke oven (door leakage and extinction)	-	-	x	x	(x)	(x)	-	(x)	x	x	x	x	x	x	x	-	x	-	-	-	x
04 02 02	Blast furnace charging	-	-	(x)	-	x	x	-	-	x	x	x	x	-	x	x	-	x	-	-	-	x
04 02 03	Pig iron tapping	(x)	-	-	(x)	(x)	-	-	-	-	x	-	-	-	-	-	-	-	-	-	(x)	x
04 02 04	Solid smokeless fuel	-	-	(x)	(x)	-	-	-	-	x	x	-	-	x	-	x	-	x	-	-	-	x
04 02 05	Open hearth furnace steel plant	(x)	x	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	x	x	-	-	(x)	x
04 02 06	Basic oxygen furnace steel plant	x	(x)	(x)	(x)	**X**	(x)	(x)	-	x	x	x	x	x	x	x	x	x	-	-	(x)	x
04 02 07	Electric furnace steel plant	(x)	x	(x)	(x)	x	(x)	(x)	-	x	x	x	x	x	x	x	x	x	-	-	(x)	x
04 02 08	Rolling mills	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 02 09	Sinter plant (except combustion 03.03.01)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x
04 02 10	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
04 03	**Processes in non-ferrous metal industries**																					
04 03 01	Aluminium production (electrolysis)	x	(x)	(x)	-	x	x	(x)	(x)	-	x	-	-	-	x	-	-	x	-	-	(x)	x
04 03 02	Ferro alloys	x	(x)	(x)	(x)	x	x	-	-	-	-	x	-	-	x	-	-	-	-	-	(x)	x
04 03 03	Silicium production	-	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)
04 03 04	Magnesium production (except 03.03.23)	x	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
04 03 05	Nickel production (except 03.03.24)	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-		-	-
04 03 06	Allied metal manufacturing	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-
04 03 07	Galvanising	-	-	-	-	-	-	-	-	-	x	-	-	-	-	x	-	x	-	-	-	-
04 03 08	Electroplating	-	-	-	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-	-	-
04 03 09	Other	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
04 04	**Processes in inorganic chemical industries**																					
04 04 01	Sulphuric acid	x	-	-	-	-	-	-	-	(x)	(x)	-	-	(x)	-	(x)	-	(x)	-	-	-	-
04 04 02	Nitric acid	-	x	x	-	-	-	**X**	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 03	Ammonia	-	x	x	(x)	-	x	**X**	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 04	Ammonium sulphate	(x)	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 05	Ammonium nitrate	-	(x)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 06	Ammonium phosphate	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 07	NPK fertilisers	x	x	x	-	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 08	Urea	-	-	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 09	Carbon black	(x)	-	x	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 04 10	Titanium dioxide	x	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 11	Graphite	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 04 12	Calcium carbide production	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 04 13	Chlorine production	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	(x)	-
04 04 14	Phosphate fertilizers	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-
04 04 15	Storage and handling of inorganic chemical prod.	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	(x)	(x)	-
04 04 16	Other	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05	**Proc. in organic chemical industry (bulk production)**																					

04 05 01	Ethylene	-	-	x	(x)	(x)	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 02	Propylene	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 03	1,2 dichloroethane (except 04.05.05)	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 04	Vinyl chloride (except 04.05.05)	-	-	(x)	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
04 05 05	1,2 dichloroethane + vinyl chloride (balanced process)	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 06	Polyethylene Low Density	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 07	Polyethylene High Density	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 08	Polyvinyl chloride	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 09	Polypropylene	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 10	Styrene	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 11	Polystyrene	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 12	Styrene butadiene	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 13	Styrene-butadiene latex	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 14	Styrene-butadiene rubber (SBR)	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 15	Acrylonitrile Butadiene Styrene (ABS) resins	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 16	Ethylene oxide	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 17	Formaldehyde	-	-	x	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 18	Ethylbenzene	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 19	Phtalic anhydride	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 20	Acrylonitrile	-	-	(x)	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 21	Adipic acid	-	(x)	-	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 22	Storage and handling of organic chemical products (o)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 23	Glyoxylic acid	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 05 24	Halogenated hydrocarbons production	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	(x)	-
04 05 25	Pesticide production	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
04 05 26	Production of persistent organic compounds	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	(x)	(x)	x
04 05 27	Other (phytosanitary,...)	-	-	(x)	-	-	-	-	-	-	-	-	-	(x)	-	-	-	-	-	x	-	-
04 06	**Processes in wood, paper pulp, food, drink and other industries**																					
04 06 01	Chipboard	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 02	Paper pulp (kraft process)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
04 06 03	Paper pulp (acid sulphite process)	x	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
04 06 04	Paper pulp (Neutral Sulphite Semi-chemical process)	x	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-
04 06 05	Bread	-	-	x	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 06	Wine	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 07	Beer	-	-	x	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 08	Spirits	-	-	x	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 10	Roof covering with asphalt materials	(x)	-	x	-	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
04 06 11	Road paving with asphalt	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 12	Cement (decarbonizing)	-	-	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 13	Glass (decarbonizing)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 14	Lime (decarbonizing)	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
04 06 15	Batteries manufacturing	-	-	-	-	-	-	-	-	-	x	-	-	x	x	x	-	x	-	-	-	-
04 06 16	Extraction of mineral ores	-	-	-	-	-	-	-	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-
04 06 17	Other (including amiante production)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-
04 07	**Cooling plants**	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

05	EXCTRACTION AND DISTRIBUTION OF FOSSIL FUELS AND GEOTHERMAL ENERGY	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS								PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Se	Zn	TRI	PER	DIOX	PAH
05 01	**Extraction and 1st treatment of solid fossil fuels**																				
05 01 01	Open cast mining	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 01 02	Underground mining	-	-	-	**M**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 01 03	Storage of solid fuel	-	-	-	**X**	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 02	**Extraction, 1st treatment and loading of liquid fossil fuels**																				
05 02 01	Land-based activities	(x)	-	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 02 02	Off-shore activities	(x)	-	**X**	x	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 03	**Extraction, 1st treatment and loading of gaseous fossil fuels**																				
05 03 01	Land-based desulfuration	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 03 02	Land-based activities (other than desulfuration)	(x)	-	x	x	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 03 03	Off-shore activities	(x)	-	(x)	x	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 04	Liquid fuel distribution (except gasoline distribution)																				
05 04 01	Marine terminals (tankers, handling and storage)	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 04 02	Other handling and storage (including pipeline)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 05	**Gasoline distribution**																				
05 05 01	Refinery dispatch station	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 05 02	Transport and depots (except 05.05.03)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 05 03	Service stations (including refuelling of cars)	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 06	**Gas distribution networks**																				
05 06 01	Pipelines	-	-	(x)	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 06 03	Distribution networks	-	-	x	**X**	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
05 07	Geothermal energy extraction	(x)	-	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

06	SOLVENT AND OTHER PRODUCT USE	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
06 01	**Paint application**																					
06 01 01	Paint application : manufacture of automobiles	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 02	Paint application : car repairing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 03	Paint application : construction and buildings (except item 06.01.07)	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 04	Paint application : domestic use (except 06.01.07)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 05	Paint application : coil coating	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 06	Paint application : boat building	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 07	Paint application : wood	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 08	Other industrial paint application	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 01 09	Other non industrial paint application	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
																-						
06 02	**Degreasing, dry cleaning and electronics**															-						
06 02 01	Metal degreasing	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	(x)	-
06 02 02	Dry cleaning	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	(x)	-
06 02 03	Electronic components manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
06 02 04	Other industrial cleaning	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	-
																-						
06 03	**Chemical products manufacturing or processing**															-						
06 03 01	Polyester processing	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 03 02	Polyvinyl chloride processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 03 03	Polyurethane processing	-	-	x	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
06 03 04	Polystyrene foam processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 03 05	Rubber processing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
06 03 06	Pharmaceutical products manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 03 07	Paints manufacturing	-	-	x	-	-	-	-	-	-	x	x	-	-	-	x	-	x	x	-	-	-
06 03 08	Inks manufacturing	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
06 03 09	Glues manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
06 03 10	Asphalt blowing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
06 03 11	Adhesive, magnetic tapes, films and photographs manufacturing	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	-	-
06 03 12	Textile finishing	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
06 03 13	Leather tanning	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
06 03 14	Other	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	(x)	-	-
0604	**Other use of solvents and related activities**																					
060401	Glass wool enduction			x																		
060402	Mineral wool enduction			(x)																		
060403	Printing industry			x																(x)		
060404	Fat, edible and non edible oil extraction			x																x	x	
060405	Application of glues and adhesives			x																		

060406	Preservation of wood			x																		
060407	Underseal treatment and conservation of vehicles			x																		
060408	Domestic solvent use (other than paint application)			x																(x)		
060409	Vehicles dewaxing			x																		
060410	Pharmaceutical products manufacturing			x																		
060411	Domestic use of pharmaceutical products			x																		
060412	Other (Preservation of seeds,….)			x																(x)	(x)	
0605	**Use of N2O**																					
060501	Use of N2O for anaesthesia							x														
060502	Other use of N2O							x														

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

07	ROAD TRANSPORT	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
07 01	**Passenger cars**																					
07 01 01	Highway driving	x	**X**	**X**	(x)	**X**	**X**	x	x	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 01 02	Rural driving	x	**X**	**X**	x	**M**	**X**	x	x	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 01 03	Urban driving	x	**X**	**X**	x	**M**	**X**	x	x	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 02	**Light duty vehicles < 3.5 t**																					
07 02 01	Highway driving	(x)	x	x	(x)	x	x	x	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 02 02	Rural driving	x	**X**	x	(x)	**X**	x	x	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 02 03	Urban driving	x	**X**	**X**	(x)	**X**	x	x	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 03	**Heavy duty vehicles > 3.5 t and buses**																					
07 03 01	Highway driving	x	**X**	x	(x)	x	**X**	x	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 03 02	Rural driving	x	**X**	**X**	(x)	**X**	**X**	x	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 03 03	Urban driving	x	**X**	**X**	(x)	**X**	**X**	x	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 04	**Mopeds and Motorcycles < 50 cm3**	(x)	(x)	**X**	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 05	**Motorcycles > 50 cm3**																					
07 05 01	Highway driving	(x)	(x)	x	(x)	x	(x)	(x)	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 05 02	Rural driving	(x)	(x)	x	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 05 03	Urban driving	(x)	(x)	x	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
07 06	**Gasoline evaporation from vehicles**	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
07 07	**Automobile tyre and brake wear**	-	-	-	-	-	-	-	-	-	x	x	x	-	x	-	-	x	-	-	-	-

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

08	OTHER MOBILE SOURCES AND MACHINERY	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
08 01	**Military**	(x)	x	x	(x)	x	x	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 02	**Railways**																				(x)	x
08 02 01	Shunting locs	(x)	x	(x)	(x)	(x)	x	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 02 02	Rail-cars	(x)	x	(x)	(x)	(x)	x	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 02 03	Locomotives	(x)	x	(x)	(x)	(x)	x	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 03	**Inland waterways**																				(x)	x
08 03 01	Sailing boats with auxiliary engines	(x)	x	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 03 02	Motorboats / work boats	(x)	x	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 03 03	Personal water craft	(x)	x	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 03 04	Inland goods carrying vessels	(x)	x	(x)	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 04	**Maritime activities**																					
08 04 02	National sea traffic within EMEP area	x	**X**	x	(x)	x	x	x	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 04 03	National fishing	x	x	(x)	(x)	(x)	x	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 04 04	International sea traffic (international bunkers)	x	x	x	x	x	x	x	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 05	**Air traffic**																				(x)	x
08 05 01	Domestic airport traffic (LTO cycles - < 1000 m)	(x)	x	x	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 05 02	International airport traffic (LTO cycles - <1000 m)	(x)	x	x	(x)	x	x	(x)	(x)	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 05 03	Domestic cruise traffic (>1000 m)	x	x	x	x	x	x	x	x	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 05 04	International cruise traffic (>1000 m)	x	x	x	x	x	x	x	x	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 06	**Agriculture**	x	**X**	**X**	(x)	**X**	**X**	x	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 07	**Forestry**	(x)	x	x	(x)	(x)	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 08	**Industry**	x	**X**	x	(x)	x	x	x	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 09	**Household and gardening**	(x)	x	x	(x)	x	(x)	(x)	-	-	x	x	x	-	x	x	x	x	-	-	(x)	x
08 10	**Other off-road**	x	x	x	x	x	x	x	-	-	x	x	x	-	x	x	x	x	-	-	(x)	(x)

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

09	WASTE TREATMENT AND DISPOSAL	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
09 02	**Waste incineration**																					
09 02 01	Incineration of domestic or municipal wastes	x	x	(x)	(x)	x	x	(x)	-	x	x	x	x	x	x	x	x	x	x	-	(x)	x
09 02 02	Incineration of industrial wastes (except flaring)	x	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	x	x	x	-	(x)	x
09 02 03	Flaring in oil refinery	x	x	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x
09 02 04	Flaring in chemical industries	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x
09 02 05	Incineration of sludge from waste water treatment	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	-	x	-	x	(x)	x
09 02 06	Flaring in gas and oil extraction	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	-	-	-	-	-	-	-	-	-	(x)	x
09 02 07	Incineration of hospital wastes	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	-	x	x	x	(x)	x
09 02 08	Incineration of waste oil	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	x	x	x	x	x	x	x	-	x	x	x	(x)	x
09 07	**Open burning of agricultural wastes (except 10.03)**	(x)	x	**X**	x	**X**	x	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	x
09 09	**Cremation**																					
09 09 01	Incineration of corpses	x	x	x	x	x	x	x	-	-	-	-	-	x	-	-	-	-	-	-	-	x
09 09 02	Incineration of carcasses	x	x	x	x	x	x	x	-	-	-	-	-	x	-	-	-	-	-	-	-	x
09 10	**Other waste treatment**																					
09 10 01	Waste water treatment in industry	-	-	x	x	-	(x)	x	x	-	-	-	-	-	-	-	-	-	x	-	(x)	-
09 10 02	Waste water treatment in residential/commercial sect.	-	-	x	x	-	x	x	x	-	-	-	-	-	-	-	-	-	x	-	(x)	-
09 10 03	Sludge spreading	-	-	x	x	-	-	(x)	x	-	-	-	-	-	-	-	-	-	-	-	(x)	-
09 10 04	Land filling	-	x	x	**M**	x	x	-	**X**	-	-	-	-	-	-	-	-	-	x	-	(x)	(x)
09 10 05	Compost production from waste	-	-	(x)	x	-	x	-	(x)	-	-	-	-	-	-	-	-	-	x	-	(x)	-
09 10 06	Biogas production	-	-	(x)	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)
09 10 07	Latrines	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
09 10 08	Refuse Derived Fuel production	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	(x)

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

10	AGRICULTURE AND FORESTRY, LAND USE AND WOOD STOCK CHANGE	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
10 01	**Cultures with fertilizers (except animal manure)**																					
10 01 01	Permanent crops	-	-	x	**X**	-	-	**X**	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 02	Arable land crops	-	-	x	x	-	-	**M**	**M**	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 03	Rice field	-	-	(x)	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 04	Market gardening	-	-	(x)	x	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 05	Grassland	-	-	x	x	-	-	**X**	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-
10 01 06	Fallow	-	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02	**Cultures without fertilizers**																					
10 02 01	Permanent crops	-	-	x	(x)	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 02	Arable land crops	-	-	(x)	(x)	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 03	Rice field	-	-	(x)	x	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 04	Market gardening	-	-	(x)	(x)	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 05	Grassland	-	-	x	(x)	-	-	**X**	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-
10 02 06	Fallow	-	-	-	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 03	**On-field burning of stubble, straw,...**	-	x	x	x	x	x	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	x
10 04	**Enteric fermentation**																					
10 04 01	Dairy cows	-	-	-	**X**	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 02	Other cattle	-	-	-	**X**	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 03	Ovines	-	-	-	**X**	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 04	Fattening pigs	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 05	Horses	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 06	Mules and asses	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 07	Goats	-	-	-	x	-	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 08	Laying hens	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 09	Broilers	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 10	Other poultry (ducks, geese, etc.)	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 11	Fur animals	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 12	Sows	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 13	Camels	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 14	Buffalo	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 04 15	Other	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05	**Manure management**																					
10 05 01	Dairy cows	-	-	x	**X**	-	-	x	**M**	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 02	Other cattle	-	-	x	**X**	-	-	x	**M**	-	-	-	-	-	-	-	-	-	-	-	-	-

10 05 03	Fattening pigs	-	-	**X**	**X**	-	-	x	**M**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 04	Sows	-	-	x	x	-	-	(x)	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 05	Ovines	-	-	x	x	-	-	x	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 06	Horses	-	-	x	x	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 07	Laying hens	-	-	x	x	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 08	Broilers	-	-	x	x	-	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 09	Other poultry (ducks, geese, etc.)	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 10	Fur animals	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 11	Goats	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 12	Mules and asses	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 13	Camels	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 14	Buffalo	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 05 15	Other	-	-	x	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 06	**Use of pesticides**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	(x)	-	
10 07	**Managed deciduous forests**																						
10 07 01	High isoprene emitters	-	-	**X**	x	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 07 02	Low isoprene emitters	-	-	x	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 07 03	Non isoprene emitters	-	-	**X**	x	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 08	**Managed coniferous forests**	-	-	**M**	x	-	-	**X**	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11	**LUWC-Wood biomass stock change /annual growth**																						
10 11 01	Tropical forests/Plantations	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 02	Tropical forests/Other managed forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 03	Tropical forests/Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 04	Temperate forests/Plantations	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 05	Temperate forests/Commercial	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 06	Temperate forests/Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 07	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 08	Other ecosystem types	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 11 09	Non-forest trees	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 12	**LUWC-Wood Biomass stock change /annual harvest**																						
10 12 01	Biomass in commercial harvest	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 12 02	Traditional fuel wood consumed	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 12 03	Other wood use	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13	**LUWC-Conversion /Burning aboveground biomass**																						
10 13 01	Tropical forests on site	-	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 02	Tropical forests off site	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 03	Temperate forests on site	-	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 04	Temperate forests off site	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 05	Boreal forests on site	-	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 06	Boreal forests off site	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

10 13 07	Grassland on site	-	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 08	Grassland off site	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 09	Other on site	-	x	x	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 13 10	Other off site	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 14	**LUWC-Conversion /Aboveground biomass decay**																					
10 14 01	Tropical forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 14 02	Temperate forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 14 03	Boreal forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 14 04	Grassland	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 14 05	Other	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 15	**LUWC-Conversion /Soil carbon release**																					
10 15 01	Tropical forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 15 02	Temperate forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 15 03	Boreal forests	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 15 04	Grassland	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 15 05	Other	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 16	**LUWC-Managed land abandonment < 20 years /**																					
	Aboveground biomass carbon uptake																					
10 16 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 16 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 16 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 16 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 16 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 17	**LUWC-Managed land abandonment < 20years /**																					
	Soil carbon uptake																					
10 17 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 17 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 17 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 17 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 17 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 18	**LUWC-Managed land abandonment >20years /**																					
	Aboveground biomass carbon uptake																					
10 18 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 18 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 18 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 18 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 18 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 19	**LUWC-Managed land abandonment > 20years /**																					
	Soil carbon uptake																					
10 19 01	Tropical forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

10 19 02	Temperate forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 19 03	Boreal forests	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 19 04	Grassland	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 19 05	Other	-	-	-	-	-	u	-	-	-	-	-	-	-	-	-	-	-	-	-	-

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

11	NATURE	ACIDIFYERS, OZONE PRECURSORS AND GREENHOUSE GASES								HEAVY METALS									PERSISTANT ORGANIC POLLUTANTS			
		SO_x	NO_x	NMVOC	CH_4	CO	CO_2	N_2O	NH_3	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	TRI	PER	DIOX	PAH
11 01	**Non-managed deciduous forests**																					
11 01 01	High isoprene emitters	-	-	**X**	x	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 01 02	Low isoprene emitters	-	-	x	(x)	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 01 03	Non isoprene emitters	-	-	**X**	x	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 02	**Non-managed coniferous forests**	-	-	**M**	x	-	-	**X**	x	-	-	-	-	-	-	-	-	-	-	-	-	-
11 03	**Forest fires**	(x)	x	x	x	**X**	-	-	(x)	-	-	-	-	-	-	-	-	-	-	-	x	x
11 04	**Natural grassland**	-	-	x	x	-	-	**X**	x	-	-	-	-	-	-	-	-	-	-	-	-	-
11 05	**Wetlands (marshes swamps)**																					
11 05 01	Underdrained and brackish marshes	-	-	-	**X**	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	x
11 05 02	Drained marshes	-	-	-	x	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	x
11 05 03	Raised bogs	-	-	-	x	-	-	x	(x)	-	-	-	-	-	-	-	-	-	-	-	-	x
11 06	**Waters**																					
11 06 01	Lakes	-	-	-	**M**	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 06 02	Shallow saltwater	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 06 03	Ground waters	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 06 04	Drainage waters	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 06 05	Rivers	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 06 06	Ditches and canals	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 06 07	Open sea (> 6m)	-	-	-	x	-	-	**X**	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 07	**Animals**																					
11 07 01	Termites	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11 07 02	Mammals	-	-	-	x	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-
11 08	**Volcanoes**	**X**	x	x	x	x	x	-		(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	-	-	-	x
11 09	**Near-surface deposits**	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

M: > 10 % , **X**: > 1 % , x : > 0.1 % , (x) : < 0.1 % , - : generally not relevant

Appendix 7

Translation between CORINAIR and IPCC codes

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CORRESPONDENCE BETWEEN SNAP 97 AND IPCC 1996 SOURCE CATEGORIES

SNAP item corresponds to only one IPCC source category as defined in standard data tables.

All codes used in this document refer to :
- CORINAIR / SNAP 97 version 1.0 dated 20/03/1998
- IPCC / Greenhouse Gas Inventory / Reporting Instructions / Rev. 1996 Guidelines for National Greenhouse Gas Inventories (Vol 1)

CORINAIR / SNAP classification		IPCC classification
01	**COMBUSTION IN ENERGY AND TRANSFORMATION INDUSTRIES**	
01 01	**Public power** Items 01.01.01 to 01.01.05	1A1a Electricity and heat production
01 02	**District heating plants** Items 01.02.01 to 01.02.05	1A1a Electricity and heat production
01 03	**Petroleum refining plants** Items 01.03.01 to 01.03.06	1A1b Petroleum refining
01 04	**Solid fuel transformation plants** Items 01.04.01 to 01.04.07	1A1c Manufacture of Solid Fuels and Other Energy Industries
01 05	**Coal mining, oil / gas extraction, pipeline compressors** Items 01.05.01 to 01.05.05	1A1c Manufacture of Solid Fuels and Other Energy Industries
01 05 06	Pipeline compressors	1A3e Transport-Other transportation

CORINAIR / SNAP classification		IPCC classification	
02	**NON-INDUSTRIAL COMBUSTION PLANTS**		
02 01	**Commercial and institutional plants**	1A5a	(*)
	Items 02.01.01 to 02.01.06	1A4a	Other Sectors-Commercial/Institutional
02 02	**Residential plants**		
	Items 02.02.01 to 02.02.05	1A4b	Other Sectors-Residential
02 03	**Plants in agriculture, forestry and aquaculture**		
	Items 02.03.01 to 02.03.05	1A4c	Other Sectors-Agriculture/Forestry/Fishing
03	**COMBUSTION IN MANUFACTURING INDUSTRY**		
03 01	**Combustion in boilers, gas turbines and stationary engines**	1A2	Industry
	Items 03.01.01 to 03.01.06		When relevant economic sector split data are available in CORINAIR, data can be allocated to sub-categories a to f.
03 02	**Process furnaces without contact**		
03 02 03	Blast furnace cowpers	1A2a	Industry-Iron and steel
03 02 04	Plaster furnaces	1A2f	Industry-Other
03 02 05	Other furnaces	1A2f	Industry-Other by default
03 03	**Processes with contact**		
	Items 03.03.01 to 03.03.03	1A2a	Industry-Iron and steel
	Items 03.03.04 to 03.03.10 and 03.03.22 to 03.03.24	1A2b	Industry-Non-ferrous metals
	SF6 emission for 03.03.10	2C4	Industrial Processes-Metal Production-SF6 Used
	Items 03.03.11 to 03.03.20 and 03.03.25 and 03.03.26	1A2f	Industry-Other
03 03 21	Paper-mill industry (drying processes)	1A2d	Industry-Pulp, Paper and Print

(*) stationary military sources are not differenciated in SNAP 02 01. This item cannot be allocated twice; miltary emissions representing generally minor contributions within this category, figures are allocated to IPCC 1A4a only to avoid double counting.

CORINAIR / SNAP classification		IPCC classification
04	**PRODUCTION PROCESSES**	
04 01	**Processes in petroleum industries**	
	Items 04.01.01 to 04.01.05	1B2a Fugitive emissions from fuels-Oil and natural gas/Oil
04 02	**Processes in iron and steel industries and collieries**	
	Items 04.02.01 and 04.02.04	1B1b Fugitive emissions from fuels-Solid fuels/Transformation
	Items 04.02.02 , 04.02.03 and 04.02.05 to 04.02.10	2C1 Industrial Processes-Metal Production-Iron and steel
04 03	**Processes in non-ferrous metal industries**	
04 03 01	Aluminium production (electrolysis)	2C3 Industrial Processes-Metal Production-Aluminium
04 03 02	Ferro alloys	2C2 Industrial Processes-Metal Production-Ferroalloys
	SF6 emission from 03.03.10, 04.03.01 and 04.03.04	2C4 Industrial Processes-Metal Production-SF6 Used
	Items 04.03.03 to 04.03.09	2C5 Industrial Processes-Metal Production-Other
04 04	**Processes in inorganic chemical industries**	
04 04 01	Sulphuric Acid	2B5 Industrial Processes-Chemical Industry/Other
04 04 02	Nitric acid	2B2 Industrial Processes-Chemical Industry-Nitric Acid
04 04 03	Ammonia	2B1 Industrial Processes-Chemical Industry-Ammonia
	Items 04.04.04 to 04.04.11 and 04.04.13 to 04.04.16	2B5 Industrial Processes-Chemical Industry/Other
04 04 12	Calcium Carbide production	2B4 Industrial Processes-Chemical Industry-Carbide

CORINAIR / SNAP classification		IPCC classification	
04 05	**Processes in organic chemical industries (bulk production)**		
	Items 04.05.01 to 04.05.20 and 04.05.22 to 04.05.26	2B5	Industrial Processes-Chemical Industry-Other
04 05 21	Adipic acid	2B3	Industrial Processes-Chemical Industry-Adipic Acid
04 05 27	Other	2B5	Industrial Processes-Chemical Industry-Other
04 06	**Proc. in wood, paper pulp, food, drink and other industries**		
	Items 04.06.01 to 04.06.04	2D1	Industrial processes-Other Production-Pulp and Paper
	Items 04.06.05 to 04.06.08	2D2	Industrial processes-Other Production-Food and Drink
04 06 10	Roof covering with Asphalt Materials	2A5	Industrial processes-Mineral Products-Asphalt Roofing
04 06 11	Road paving with Asphalt	2A6	Industrial proc.-Mineral Products-Road Paving with Asphalt
04 06 12	Cement (decarbonizing)	2A1	Industrial processes-Mineral Products-Cement
04 06 14	Lime (decarbonizing)	2A2	Industrial processes-Mineral products/Lime
	Items 04.06.13 and 04.06.15 to 04.06.17 and 04.06.20	2A7	Industrial processes-Mineral Products-Other
04 06 18	Limestone and Dolomite use	2A3	Industrial processes-Limestone and Dolomite use
04 06 19	Soda Ash production and use	2A4	Industrial processes-Soda Ash production and use
04 08	**Production of halocarbons and sulphur hexafluoride**		
04 08 01	Halogenated hydrocarbons production - By-products	2E1	Indust. Processes.-Production of HFC and SF6-By-products
04 08 02	Halogenated hydrocarbons production - Fugitive	2E2	Industrial Processes.-Production of HFC and SF6-Fugitive
04 08 03	Halogenated hydrocarbons production - Other	2E3	Industrial Processes.-Production of HFC and SF6-Other
04 08 04	Sulphur hexafluoride production - By-products	2E1	Indust. Processes.-Production of HFC and SF6-By-products
04 08 05	Sulphur hexafluoride production - Fugitive	2E2	Industrial Processes.-Production of HFC and SF6-Fugitive
04 08 06	Sulphur hexafluoride production - Other	2E3	Industrial Processes.-Production of HFC and SF6-Other

CORINAIR / SNAP classification		IPCC classification	
05	**EXTRACTION AND DISTRIBUTION OF FOSSIL FUELS AND GEOTHERMAL ENERGY**		
05 01	**Extraction and 1st treatment of solid fossil fuels** Items 05.01.01 to 05.01.03	1B1a	Fugitive emissions from fuels-Solid fuels/Coal mining
05 02	**Extraction, 1st treatment and loading of liquid fossil fuels** Items 05.02.01 to 05.02.02	1B2a	Fugitive emissions from fuels-Oil and natural gas/Oil
05 03	**Extraction, 1st treat. and loading of gaseous fossil fuels** Items 05.03.01 to 05.03.03	1B2b	Fugitive emissions from fuels-Oil and natural gas/Natural gas
05 04	**Liquid fuel distribution (except gasoline distribution)** Items 05.04.01 to 05.04.02	1B2a	Fugitive emissions from fuels-Oil and natural gas/Oil
05 05	**Gasoline distribution** Items 05.05.01 to 05.05.03	1B2a	Fugitive emissions from fuels-Oil and natural gas/Oil
05 06	**Gas distribution networks** Items 05.06.01 to 05.06.02	1B2b	Fugitive emissions from fuels-Oil and natural gas/Natural gas
05 07	**Geothermal energy extraction**	7	Other

CORINAIR / SNAP classification		IPCC classification
06	**SOLVENT AND OTHER PRODUCT USE**	
06 01	**Paint application**	
	Items 06.01.01 to 06.01.09	3A Solvent and other product use-Paint application
06 02	**Degreasing, dry cleaning and electronics**	
	Items 06.02.01 to 06.02.04 except SF6, PFC and HFC	3B Solvent and other product use-Degreasing and dry cleaning
	PFC and HFC emissions	2F5 Indust. proc.-Consumption of halocarbons and SF6-Solvents
	SF6 emissions	2F6 Indust. proc.-Consumption of halocarbons and SF6-Other
CORINAIR / SNAP classification		**IPCC classification**
06 03	**Chemical products manufacturing or processing**	
	Items 06.03.01 to 06.03.14	3C Solvent and other product use-Chemical products
	PFC and HFC emissions	2F5 Indust. proc.-Consumption of halocarbons and SF6-Solvents
06 04	**Other use of solvents and related activities**	
	Items 06.04.01 to 06.04.12	3D Solvent and other product use-Other
	SF6, PFC and HFC emissions for 06.04.01 and 06.04.02	2F6 Indust. proc.-Consumption of halocarbons and SF6-Other
06 05	**Use of HFC, N2O, NH3, PFC and SF6**	
06 05 01	Anaesthesia	3D Solvent and other product use-Other
06 05 02	Refrigeration and air conditioning equipments using halocarbons	2F1 Refrigeration and air conditioning equipments
06 05 03	Refrigeration and air conditioning equipments using other products than halocarbons	2G Industrial processes-Other
06 05 04	Foam Blowing (except 060304)	2F2 Industrial processes-Foam Blowing
06 05 05	Fire extinguishers	2F3 Industrial processes-Fire extinguishers
06 05 06	Aerosol cans	2F4 Industrial processes-Aerosols
06 05 07	Electrical equipment	2F6 Industrial proc.-Consumption of halocarbons and SF6-Other
06 05 08	Other	2F6 Industrial proc.-Consumption of halocarbons and SF6-Other 3D Solvent and other product use-Other (except halocarbons and sulphur hexafluoride)

CORINAIR / SNAP classification		IPCC classification	
07	**ROAD TRANSPORT**		
07 01	**Passenger cars** Items 07.01.01 to 07.01.03	1A3b	Transport-Road (1-Cars)
07 02	**Light duty vehicles < 3.5 t** Items 07.02.01 to 07.02.03	1A3b	Transport-Road (2-Light duty trucks)
07 03	**Heavy duty vehicles > 3.5 t and buses** Items 07.03.01 to 07.03.03	1A3b	Transport-Road (3-Heavy duty trucks and buses)
07 04	**Mopeds and Motorcycles < 50 cm3**	1A3b	Transport-Road (4-Motorcycles)
07 05	**Motorcycles > 50 cm3** Items 07.05.01 to 07.05.03	1A3b	Transport-Road (4-Motorcycles)
07 06	**Gasoline evaporation from vehicles**	1A3b	Transport-Road
07 07	**Automobile tyre and brake wear**	-	Not allocated

CORINAIR / SNAP classification		IPCC classification	
08	**OTHER MOBILE SOURCES AND MACHINERY**		
08 01	**Military**	1A5	Other
08 02	**Railways**		
	Items 08.02.01 to 08.02.03	1A3c	Transport-Railways
08 03	**Inland waterways**		
	Items 08.03.01 to 08.03.04	1A3d	Transport-Navigation
08 04	**Maritime activities**		
08 04 02	National sea traffic within EMEP area	1A3d	Transport-Navigation / 2-National navigation
08 04 03	National fishing	1A4c	Small combustion-Agriculture/Forestry/Fishing
08 04 04	International sea traffic (international bunkers)	1A3d	Transport-Navigation / 1-International marine(bunkers)
08 05	**Air traffic**		
08 05 01	Domestic airport traffic (LTO cycles - <1000 m)	1A3a	Transport-Civil aviation (2-Domestic)
08 05 02	International airport traffic (LTO cycles - <1000 m)	1A3a	Transport-Civil aviation (1-International)
08 05 03	National cruise traffic (>1000 m)	1A3a	Transport-Civil aviation (2-Domestic)
08 05 04	International cruise traffic (>1000 m)	1A3a	Transport-Civil aviation (1-International)
08 06	**Agriculture**	1A4c	Small combustion-Agriculture/Forestry/Fishing
08 07	**Forestry**	1A4c	Small combustion-Agriculture/Forestry/Fishing
08 08	**Industry**	1A2f	Industry-Other by default
08 09	**Household and gardening**	1A4b	Small combustion-Residential
08 10	**Other off-road**	1A3e	Transport-Other

CORINAIR / SNAP classification		IPCC classification	
09	**WASTE TREATMENT AND DISPOSAL**		
09 02	**Waste incineration**		
	Items 09.02.01 and 09.02.02	6C	Waste-Incineration
	Items 09.02.03 and 09.02.06	1B2c	Fugitive emissions from fuels-Oil and natural gas/Flaring
	Items 09.02.04 to 09.02.05 and 09.02.07 to 09.02.08	6C	Waste-Incineration
09 04	**Solid Waste Disposal on Land**		
09 04 01	Managed Waste Disposal on Land	6A1	Waste-Solid waste disposal on land-Managed Disposal
09 04 02	Unmanaged Waste Disposal Sites	6A2	Waste-Solid waste disposal on land-Unmanaged Sites
09 04 03	Other	6A3	Waste-Solid waste disposal on land-Other
09 07	**Open burning of agricultural wastes (except 10.03)**	6C	Waste-Incineration
09 09	**Cremation**		
	Items 09.09.01 to 09.09.02	6C	Waste-Incineration
09 10	**Other waste treatment**		
09 10 01	Waste water treatment in industry	6B1	Waste-Wastewater treatment/Industrial
09 10 02	Waste water treatment in residential and commercial sect.	6B2	Waste-Wastewater treatment/Domestic and commercial
09 10 03	Sludge spreading	6D	Waste-Other
09 10 05	Compost production	6D	Waste-Other
09 10 06	Biogas production	6D	Waste-Other
09 10 07	Latrines	6B2	Waste-Wastewater treatment
09 10 08	Other production of fuel (refuse derived fuel,...)	6C	Waste-Incineration

CORINAIR / SNAP classification		IPCC classification	
10	**AGRICULTURE**		
10 01	**Cultures with fertilizers**		
	Items 10.01.01 to 10.01.02 and 10.01.04 to 10.01.06	4D	Agriculture-Agricultural soils
10 01 03	Rice field	4C	Agriculture-Rice cultivation
10 02	**Cultures without fertilizers**		
	Items 10.02.01 to 10.02.02 and 10.02.04 to 10.02.06	4D	Agriculture-Agricultural soils
10 02 03	Rice field	4C	Agriculture-Rice cultivation
10 03	**On-field burning of stubble, straw,...**		Agriculture-Field burning of agricultural wastes
10 03 01	Cereals	4F1	Agriculture-Field burning of agricultural wastes-Cereals
10 03 02	Pulse	4F2	Agriculture-Field burning of agricultural wastes-Pulse
10 03 03	Tuber and Root	4F3	Agriculture-Field burning of agric. wastes-Tuber and Root
10 03 04	Sugar Cane	4F4	Agriculture-Field burning of agric. wastes-Sugar Cane
10 03 05	Other	4F5	Agriculture-Field burning of agricultural wastes-Other
10 04	**Enteric fermentation**		
10 04 01	Dairy cows	4A1a	Agriculture-Enteric fermentation/Cattle/Dairy
10 04 02	Other cattle	4A1b	Agriculture-Enteric fermentation/Cattle/Non-dairy
10 04 03	Ovines	4A3	Agriculture-Enteric fermentation/Sheep
	Items 10.04.04 and 10.04.12	4A8	Agriculture-Enteric fermentation/Swine
10 04 05	Horses	4A6	Agriculture-Enteric fermentation/Horses
10 04 06	Mules and asses	4A7	Agriculture-Enteric fermentation/Mules and asses
10 04 07	Goats	4A4	Agriculture-Enteric fermentation/Goats
	Items 10.04.08 to 10.04.10	4A9	Agriculture-Enteric fermentation/Poultry
	Items 10.04.11 and 10.04.15	4A10	Agriculture-Enteric fermentation/Other
10 04 13	Camels	4A5	Agriculture-Enteric fermentation/Camels and llamas
10 04 14	Buffalos	4A2	Agriculture-Enteric fermentation/Buffalos

CORINAIR / SNAP classification		IPCC classification	
10 05	**Manure management regarding Organic compounds**		
10 05 01	Dairy cows	4B1a	Agriculture-Manure management/Cattle/Dairy
10 05 02	Other cattle	4B1b	Agriculture-Manure management/Cattle/Non-dairy
	Items 10.05.03 and 10.05.04	4B8	Agriculture-Manure management/Swine
10 05 05	Sheep	4B3	Agriculture-Manure management/Sheep
10 05 06	Horses	4B6	Agriculture-Manure management/Horses
	Items 10.05.07 to 10.05.09	4B9	Agriculture-Manure management/Poultry
	Items 10.05.10 and 10.05.15	4B13	Agriculture-Manure management/Other
10 05 11	Goats	4B4	Agriculture-Manure management/Goats
10 05 12	Mules and asses	4B7	Agriculture-Manure management/Mules and asses
10 05 13	Camels	4B5	Agriculture-Enteric fermentation/Camels and llamas
10 05 14	Buffalos	4B2	Agriculture-Enteric fermentation/Buffalos
10 06	**Use of pesticides and Limestone**		
	Items 10.06.01 to 10.06.04 (CO_2 from liming only)	5D	CO_2 Emissions and removals from soil
10 09	**Manure management regarding Nitrogen compounds**		
10 09 01	Anaerobic	4B10	Agriculture-Manure management-Anaerobic
10 09 02	Liquid Systems	4B11	Agriculture-Manure management-Liquid Systems
10 09 03	Solid Storage an dry lot	4B12	Agriculture-Manure management-Solid Storage
10 09 04	Other	4B13	Agriculture-Manure management-Other

CORINAIR / SNAP classification		IPCC classification	
11	**OTHER SOURCES AND SINKS**		
11 01	**Non-managed broadleaf forests**	-	Not allocated
11 02	**Non-managed coniferous forests**	-	Not allocated
11 03	**Forest and other vegetation fires**	-	Not allocated
11 04	**Natural grassland and other vegetation**	-	Not allocated
11 05	**Wetlands (marshes - swamps)**	4D	N2O from Leakage of N into Waters
11 06	**Waters**	4D	N2O from Leakage of N into Waters
11 07	**Animals**	-	Not allocated
11 08	**Volcanoes**	-	Not allocated
11 09	**Gas seeps**	-	Not allocated
11 10	**Lightning**	-	Not allocated
11 11	**Managed broadleaf forests** Items 11.11.04 to 11.11.11 and 11.11.15 to 11.11.17	5E	Land Use Change and Forestry-Other
11 12	**Managed coniferous forests** Items 11.12.04 and 11.12.12 and 11.12.15 to 11.12.16	5E	Land Use Change and Forestry-Other

CORINAIR / SNAP classification		IPCC classification	
11 21	**Changes in forest and other woody biomass stock**		
11 21 01	Tropical forests	5A1	Changes in forest and other woody biomass stocks/Tropical
11 21 02	Temperate forests	5A2	Changes in forest and other woody biomass stocks/Temperate
11 21 03	Boreal forests	5A3	Changes in forest and other woody biomass stocks/Boreal
11 21 04	Grassland/tundra	5A4	Changes in forest and other woody biomass stocks/Grassland
11 21 05	Other	5A5	Changes in forest and other woody biomass stocks/Other
11 22	**Forest and grassland conversion**		
11 22 01	Tropical forests	5B1	Forest and grassland conversion/Tropical
11 22 02	Temperate forests	5B2	Forest and grassland conversion/Temperate
11 22 03	Boreal forests	5B3	Forest and grassland conversion/Boreal
11 22 04	Grassland	5B4	Forest and grassland conversion/Grassland
11 22 05	Other	5B5	Forest and grassland conversion/Other
11 23	**Abandonment of Managed Land**		
11 23 01	Tropical forests	5C1	Abandonment of managed lands/Tropical
11 23 02	Temperate forests	5C2	Abandonment of managed lands/Temperate
11 23 03	Boreal forests	5C3	Abandonment of managed lands/Boreal
11 23 04	Grassland	5C4	Abandonment of managed lands/Grassland
11 23 05	Other	5C5	Abandonment of managed lands/Other
11 24	**CO2 Emissions and removals from soil (except 10.06)**	5D	CO2 Emissions and removals from soil
11 25	**Other**	5E	Other

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Appendix 8

Methodology regarding removals by sinks

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Removals by Sinks

CO_2-sequestration in existing forests.
The forest area is defined as closed canopy high forest. This means that open woodland and open areas within the forest are not included.

The assumption is that the Government's strategy of doubling the forest area within the next 80 – 100 years will be followed. Afforestation will gradually reach 40 km^2 per year as the interest in private afforestation and appropriations for national afforestation increases. The peak afforestation rate will be around the year 2020.

The 1990 inventory on forests gives a total standing stock volume of 55,154,000 m^3.

The standing stock volume is in average 13,200 m^3 per km^2 in 1990. Using the IPCC recommended conversion factors the amount of carbon stored in existing forests in 1990 was 23,600 Gg corresponding to 86,526 Gg CO_2 as shown in the table below.

CO_2 reservoirs and sinks in Gg	1990	1991	1992	1993	1994	1995	1996	1997	1998
CO_2 reservoir in forests in 1990	**86526**								
Total CO_2 uptake	**-916**	**-920**	**-923**	**-927**	**-930**	**-934**	**-947**	**-959**	**-973**
CO_2 uptake due to net increment in forests existing before 1990	-916	-916	-916	-916	-916	-916	-916	-916	-916
CO_2 uptake due to afforestation since 1990	0	-4	-7	-11	-14	-18	-31	-43	-57

CO_2 reservoir and uptake in forests in Gg, 1990 – 98.

Annual CO_2 fixation in existing forests.
The annual net-increment (increment minus thinning removals) in the period 1990 – 2000 is estimated to be 600,000 m^3 per year. Using the IPCC conversion factors this equals around 250 Gg carbon per year or 916 Gg CO_2 per year. Annual felling / removal based on 1990 figures was 480 m^3 per km^2 per year or 0.110 Gg carbon per km^2 per year.

Increasing carbon fixation through afforestation.
The total annual afforestation rate during the period 1990 – 95 is estimated to have been around 19 km^2 per year. This includes both areas covered with trees and open areas in the forest. In connection with carbon fixation it is the tree-covered area that is the interesting factor. The annual afforestation rate is therefore estimated to be between 10 and 15 km^2 per year. It is expected that the rate will increase gradually, as new afforestation incentives (adopted in 1996) takes effect.

Assuming that the forest area doubles within the next 80 – 100 years, the following CO_2 binding pattern can be expected. Over the next 30 years, CO_2 binding will be small. 70 – 120 years after the forest is planted, CO_2 binding will peak at approx. 3,500 Gg CO_2 per year or approx. 5% of present annual anthropogenic emissions in Denmark.

Within the next 10 – 20 years, the quantity of wood for energy purposes is expected to rise while the quantity of wood for pulp and paper production will fall.

1990 – 98
The average afforestation rate over the period 1990 – 95 was 19.38 km^2 per year. Danish CO_2 uptake and growth models show an average CO_2 binding rate of 0.41 Gg CO_2 per km^2 per year on average basis through the whole afforestation period of 150 years. This means that the 19.38 km^2 per year equals 8 Gg CO_2 per year. The total annual uptake over the period 1990 – 98 is also shown in the table above.

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Appendix 9

Methodology regarding electricity exchange adjustments

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Danish Energy Agency
Electricity division

2000-01-28
SLP

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:

[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.

$$Emi_{Corr} = Emi \times \left(1 - \frac{H}{Eff_h \times En}\right) \times \frac{I}{P}$$

where:

Emi	- is the calculated total emission from central power plants in tonnes.
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.

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Appendix 10

Methodology regarding outside temperature variations adjustments

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Date 2000-01-28

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°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
Normal Year[1]	3175	195	3370

[1] 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.

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.

Table 2 **Share for heating (r)**	Agriculture and Forestry	Horti-culture	Fishing	Manu-facturing	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	0,60	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	0,40	0,00	0,00	0,00	0,00	0,00
Straw	0,80	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-culture	Fishing	Manu-facturing	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	0,15	0,71
1991	0,29	0,76	0,16	0,71
1992	0,28	0,76	0,15	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	0,27	0,76	0,13	0,71
1998	0,26	0,76	0,12	0,71

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Appendix 11

CH_4 and N_2O from agriculture

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27 March 2000
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The Danish emissions 1990-1998 of N_2O and CH_4 from the Agriculture Sector.

The Danish emission inventory for 1998 has been worked out and the inventories for 1990-1997 have been revised according to this note. The note is a description of the emissions of N_2O and CH_4 in the Danish emission reports in the IPCC format. In these reports the actual table is Table 4, Sectoral Report for Agriculture. Since the Danish inventories are made in the CORINAIR system (Winther et al. (1999)) the description of the N_2O and CH_4 emissions will also be given in the Snap code system.

Nitrous Oxide (N_2O).

The method used to calculate emissions of N_2O from **agriculture soils** and **manure management** is based on the 1996 IPPC Guidelines, IPCC (1997). Compared to the previous guidelines the method on these N_2O emissions was changed completely and the new method had to be implemented for Denmark. Some adjustments on the new method and on emission factors, etc, have been made due to Danish conditions and availability of data. The method used is outlined in this note. The method is in accordance with the method described in the report from the Danish Energy Agency (1999).

The agriculture activities and their various Nitrogen potential to N_2O emissions are shown in **Table 1**. The activities are those considered in IPCC (1997). The source of data and the method for calculation of the nitrogen input data in Table 1 are given in Box 1 below. Further, also given are the N_2O emission factors (where relevant) and the NH_3 evaporation. The information is listed according to the note number and name of activity in Table 1.

Box 1: *Source of data and the method for calculation of the nitrogen input data*

1	Synthetic fertiliser nitrogen:	Grant et al. (1999) (Annex 3.1) or Agricultural Statistics (Danmarks Statistik, 1991-1999) includes 5.8 Kt N used for golf-fields and municipal parks.		
		N_2O-emission factor, IPCC (1997) (Table 4-18).	1.25	%
		NH_3 evaporation, Andersen et al. (1999).	2	%
2	Animal excreta nitrogen:	Grant et al. (1999) (Annex 3.1).		
3	Animal grazing nitrogen:	Background table to Grant et al. (1999).		
		N_2O emission factor, IPCC (1997) (Table 4-22).	2	%
		NH_3-evaporation, Andersen et al. (1999).	7	%
4	Animal fertiliser in stables:	'2' minus '3'.		
		N_2O emission factor, IPCC (1997) (Table 4-18).	1.25	%
		NH_3 evaporation, Andersen et al. (1999).	28.3	%
5	Animal fertiliser:	'4' minus NH_3 evaporation of '4'.		

6	Manure management solid:	23% of '5', Andersen et al. (1999). N_2O emission factor, IPCC (1997) (Table 4-22).	2	%
7	Manure management liquid:	77% of '5', Andersen et al. (1999). N_2O emission factor, IPCC (1997) (Table 4-22).	0.1	%
8	N-fixation:	Grant et al. (1999) (Annex 3.1). N_2O emission factor, IPCC (1997) (Table 4-18).	1.25	%
9	Industrial waste fertiliser:	Grant et al. (1999) (Annex 3.1). N_2O emission factor, IPCC (1997) (Table 4-18).	1.25	%
10	Sewage sludge fertiliser:	Grant et al. (1999) (Annex 3.1). N_2O emission factor, IPCC (1997) (Table 4-18).	1.25	%
11	Deposition of NH_3:	NH_3 evaporation of '1'+ NH_3 evaporation of '3'+ NH_3 evaporation of '4'. N_2O emission factor, IPCC (1997) (Table 4-23).	1	%
12	Crop residue:	Grant et al. (1999) (Annex 3.1). N_2O emission factor, IPCC (1997) (Table 4-18).	1.25	%
13	Histosols:	Danish Energy Agency (1999). N_2O emission factor, IPCC (1997) (Table 4-18).	5	kg N_2O-N/1000ha
14	Leaching/runoff:	Grant et al. (1998). N_2O emission factor, IPCC (1997) (Table 4-23).	2.5	%

An emission factor as % means that % of N-input is emitted as N_2O-N. Since NH_3 emissions are not reported to IPCC, NH_3 evaporation factors are only included where they are of importance to emissions of N_2O. Due to data available for Danish conditions the values for evaporation of NH_3 are different from the IPCC default values, which are 10%, 0% and 20% for activity 1 (2%), 3 (7%) and 4 (28.3%) respectively. The method suggested by IPCC (1997) on N_2O emissions from crop residue was not used. Although crop residue data are very uncertain, better data was believed available in Grant et al. (1999) (Annex 3.1) as stated.

The data in Table 1 for 1990-1997 are the same as in the report from the Danish Energy Agency (1999). Since that report, data for 1998 (and for 1990-1997) were available in Grant et al. (1999), which is now a main reference to data in Table 1.

The **soils** are split up according to the Snap-codes as can be seen in **Table 2**. The Snap 2 level split is '1001 Cultures with fertilisers' and '1002 Cultures without fertilisers', each of that is split in 5 Snap 3 level groups. The data on areas for the soils in Table 2 are worked out from the yearly reports on Agricultural Statistics, (Danmarks Statistik, 1991 - 1999). The data for the area for the soils the split '1002' is from statistics on organic farming, Plantedirektoratet (1995, 1996, 1997, 1998, 1999).

According to IPCC (1997) and from the list above 12 activities emit N_2O. The N_2O emissions from 10 of these activities are assigned to the soil areas (see Box 2). The chosen connections between the activities and the soils (Table 2) chosen are now listed. Having chosen the connection, the N_2O emission is distributed proportional to the actual soil area. The result of this process is shown in **Table 3 - Table 6**.

Box 2: *Distribution of the N_2O-emissions to the soils*

	Activity	N_2O emission to Snap Code		Excluding		Shown in Table
1	Synthetic fertiliser nitrogen:	1001	Cultures with fertilisers	100105 100106	Grassland Fallows	3
3	Animal grazing nitrogen:	100105 100206	Grassland Grassland			4
4	Animal fertiliser in stables:	10	Agriculture	100106 100206	Fallows Fallows	5
8	N-fixation					
+9	Industrial waste fertiliser					
+10	Sewage sludge fertiliser					
+11	Deposition of NH_3					
+12	Crop residue					
+13	Histosols:	10	Agriculture	100105 100205 100106 100206	Grassland Grassland Fallows Fallows	6
14	Leaching/runoff:	11	Other sources and sinks			

The yearly sums of the N_2O emissions assigned to the soils (the sum of Tables 3-6) are shown in **Table 8**. The sum of emissions of N_2O in Table 8 gives the total emission from agriculture soils and this sum is the emission reported in the IPCC Reports, Table 4, Sectoral Report for Agriculture, Position D, Agricultural Soils.

The distribution of the N_2O-emissions to the soils described in Box 2 above is a choice that can be discussed. It must however be pointed out, that the calculation of emission reported in the IPCC Reports, Table 4, Sectoral Report for Agriculture, Position D, Agricultural Soils is independent of the distribution chosen. The distribution is only of importance to the data management of the CORINAIR databases and to the evaluation of activities and their emissions at the detailed Snap levels.

Remaining from the list of 12 activities emitting N_2O is activities 6 and 7 on **manure management**. The relevant Snap group is '1009', Manure management regarding nitrogen compounds, which is split in liquid systems, '100901' and solid systems, '100902'. The connection is shown in Box 3 below and the N_2O emissions in **Table 9**.

Box 3: *Connection with SNAP Codes*

	Activity	N_2O emission to Snap Code	Excluding	Shown in Table
6	Manure management solid:	100902	Liquid systems	9
7	Manure management liquid:	100903	Solid storage	

The emissions of N_2O in Table 9 corresponds to what is reported in the IPCC Reports in Table 4, Sectoral Report for Agriculture, Position B11, Liquid Systems, and Position B12, Solid Storage.

Methane (CH_4).

Along with the implementation of the new method for N_2O emissions, new information on the CH_4 emission from agriculture became available. The databases 1990-1998 are updated on this information as follows.

In Denmark the relevant CH_4 emissions from agriculture originates from **enteric fermentation** and **manure management**. For both types of emissions the activity data are the number of heads of the livestock **Table 10**. The source of these data is Agricultural Statistics (Table 11.1, Danmarks Statistik, 1991-1999). This source is hereafter mentioned as DS and the DS category is shown in italic.

For **enteric fermentation** the Snap Code is '1004'. For Denmark six animal types in the Snap 3 level grouping for '1004' are relevant. The source of the activity data and the emission factors are listed in Box 4 below. The list is made according to the note number in Table 10.

Box 4: *The source of the activity data and the emission factors*

No		Snap code	Reference to data	Approach	Emission Factor (Kg CH_4/head)
1	Dairy cows	100401	DS (*dairy cows*).		
			CH_4 emission factor, Andersen (1999).	Tier 2	104
2	Other cattle	100402	DS (*Cattle total* minus 1).		
			CH_4 emission factor, Andersen (1999) and the Danish Energy Agency (1999).	Tier 2	37
3	Fattening pigs	100404	DS (*Pigs total* minus 4).		
			CH_4 emission factor, IPCC (1997).	Tier 1	1.5
4	Sows	100412	DS (*Sows total*).		
			CH_4 emission factor,	Tier 1	1.5
5	Ovines	100403	DS (*Sheep total*).		
			CH_4 emission factor, IPCC (1997).	Tier 1	8
6	Horses	100405	DS (*Horses total*).		
			CH_4 emission factor, IPCC (1997).	Tier 1	18

For **manure management** the Snap Code is '1005'. For Denmark nine animal types in the Snap 3 level grouping for '1005' are relevant. The emission factors are based on a Tier 2 approach, which is an adjustment to Danish conditions of the IPCC (1997) Tier 1 for cool climate. The source of the data and the reference to the emission factor are listed in Box 5, referring to the note number in Table 10.

Box 5: *Source of data and the method for calculation of methane*

		Snap code	Reference to data	Approach	Emission Factor (Kg CH_4/head)
1	Dairy cows	100501	DS (*dairy cows*) CH_4 emission factor, Andersen (1999).	Tier 2	21.8
2	Other cattle	100502	DS (*Cattle total* minus 1) CH_4 emission factor, Andersen (1999) and the Danish Energy Agency (1999).	Tier 2	1.6
3	Fattening pigs	100503	DS (*Pigs total* minus 4) CH_4 emission factor, Andersen (1999) and the Danish Energy Agency (1999).	Tier 2	2.1
4	Sows	100504	DS (*Sows total*) CH_4 emission factor, Andersen (1999).	Tier 2	6.0
5	Ovens	100505	DS (*Sheep total*) CH_4 emission factor, Andersen (1999).	Tier 2	0.46
6	Horses	100506	DS (*Horses total*) CH_4 emission factor, Andersen (1999).	Tier 2	1.1
7	Laying hens	100507	DS (*Fowls total* minus 8) CH_4 emission factor, Andersen (1999) and the Danish Energy Agency (1999).	Tier 2	0.066
8	Broilers	100508	DS (*Chickens for slaughtering*) CH_4 emission factor, Andersen (1999) and the Danish Energy Agency (1999).	Tier 2	0.024
9	Other poultry	100509	DS (*Turkeys, Ducks, Geese*) CH_4 emission factor, Andersen (1999) and the Danish Energy Agency (1999).	Tier 2	0.057

The group Fur animals ('100510') is a minor contributor to CH_4 from manure management, but the group was not considered due to lack of emission factors.

The activity data categorised in the Snap Codes as described above are in accordance with the report from the Danish Energy Agency (1999) in the main categories and for the important emissions.

The connection between the Snap Codes and the IPCC reporting format is shown in Box 6 for enteric fermentation.

Box 6: *The connection between the Snap Codes and the IPCC reporting format*

			IPCC Table 4 Position
1	Dairy cows	100401	
+2	Other cattle	100402	A 1
3	Fattening pigs	100404	
+4	Sows	100412	A 8
5	Ovines	100403	A 3
6	Horses	100405	A 6
And for manure management:			
1	Dairy cows	100501	
+2	Other cattle	100502	B 1
3	Fattening pigs	100503	
+4	Sows	100504	B 8
5	Ovines	100505	B 3
6	Horses	100506	B 6
7	Laying hens	100507	
+8	Broilers	100508	
+9	Other poultry	100509	B 9

This connection and the activity data in Table 10 and the emission factors above lead to the emissions in **Table 11.** In this table the emissions are shown directly in the desaggregation of the emissions according to the IPCC reporting format, Table 4, Sectorial Report for Agriculture.

Table 11 includes in position B 13 a consumption of CH_4 as a consequence of the use of CH_4 from manure in biogas plants. Information on combustion of CH_4 from manure in biogas plants is taken from the report from the Danish Energy Agency (1999).

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Table 1. Agriculture related activities and their potential to N_2O emission.

Year	Synthetic fertilisers N-input (kt N)	Animal Excreta N-input (kt N)	Animal grazing N-input (kt N)	Animal fertilisers in stables N-input (kt N)	Manure management Total N-input (kt N)	Manure management Solid N-input (kt N)	Manure management Liquid N-input (kt N)	N-fixation N-input (kt N)	Industrial waste fertilisers N-input (kt N)	Sewage waste fertilisers N-input (kt N)	Deposition of NH_3 N-input (kt N)	Crop residues N-input (kt N)	Histosols Area (1000 ha)	Leaching /runoff N-input (kt N)
1990	400.4	289.7	43.4	246.3	176.6	40.6	136.0	35.7			80.7	407.7	18.4	230.0
1991	394.9	292.8	42.7	250.1	179.3	41.2	138.1	33.6		6.1	81.7	380.4	18.4	223.5
1992	369.5	299.3	43.0	256.3	183.8	42.3	141.5	32.2		7.1	82.9	307.7	18.4	217.0
1993	332.9	306.3	41.7	264.6	189.7	43.6	146.1	35.4		9.7	84.5	357.1	18.4	210.5
1994	326.2	303.8	40.1	263.7	189.1	43.5	145.6	32.7		4.6	84.0	341.4	18.4	204.0
1995	315.9	300.7	41.3	259.4	186.0	42.8	143.2	29.6		5.3	82.6	359.7	18.4	197.5
1996	290.8	301.8	42.2	259.6	186.1	42.8	143.3	30.4	4.4	4.7	82.2	343.6	18.4	191.0
1997	287.6	270.6	30.9	239.8	171.9	39.5	132.4	30.7	4.4	4.7	75.8	362.7	18.4	174.8
1998	283.2	276.8	28.5	248.3	178.1	41.0	137.1	32.2	10.5	4.0	77.9	365.8	18.4	174.8
Note No:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)

Explanation to the notes is in the text.

Table 2. Soil Area (1000 ha).

	Snap 1:	10 Agriculture											
	Snap 2:	1001 Cultures with fertilisers						1002 Cultures without fertilisers					
	Snap 3:		100101	100102	100103	100105	100106		100201	100202	100203	100205	100206
Year	10 Total	1001 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	1002 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows
1990	2788.28	2780.30	11.62	2537.60	15.69	35.67	179.73	7.97	0.08	5.74	0.31	1.57	0.27
1991	2769.66	2759.18	11.53	2522.68	15.36	29.97	179.64	10.48	0.12	7.60	0.34	2.06	0.36
1992	2756.33	2745.88	11.57	2513.61	15.17	25.88	179.64	10.45	0.13	7.58	0.33	2.05	0.36
1993	2738.56	2721.80	11.92	2501.43	15.08	13.94	179.43	16.76	0.15	12.42	0.34	3.29	0.57
1994	2691.17	2674.79	12.66	2337.01	12.23	99.60	213.29	16.39	0.15	12.06	0.40	3.22	0.56
1995	2726.03	2709.00	12.00	2265.00	12.10	204.00	215.90	17.03	0.14	12.75	0.48	3.10	0.56
1996	2716.00	2695.90	11.80	2294.50	10.30	189.30	190.00	20.10	0.18	15.16	0.46	3.60	0.70
1997	2688.01	2650.98	11.07	2322.14	8.85	162.57	146.35	37.03	0.25	30.18	0.52	5.03	1.05
1998	2671.85	2628.27	10.44	2318.48	9.33	140.31	149.70	43.58	0.22	34.97	0.72	6.49	1.19

Table 3. Emission of N_2O (kt) from Synthetic Fertiliser.

	Snap 1:	10 Agriculture											
	Snap 2:	1001 Cultures with fertilisers						1002 Cultures without fertilisers					
	Snap 3:		100101	100102	100104	100105	100106		100201	100202	100204	100205	100206
Year	10 Total	1001 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	1002 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows
1990	7.71	7.71	0.03	7.63	0.05	0	0	0	0	0	0	0	0
1991	7.60	7.60	0.03	7.52	0.05	0	0	0	0	0	0	0	0
1992	7.11	7.11	0.03	7.04	0.04	0	0	0	0	0	0	0	0
1993	6.41	6.41	0.03	6.34	0.04	0	0	0	0	0	0	0	0
1994	6.28	6.28	0.03	6.21	0.03	0	0	0	0	0	0	0	0
1995	6.08	6.08	0.03	6.02	0.03	0	0	0	0	0	0	0	0
1996	5.60	5.60	0.03	5.54	0.02	0	0	0	0	0	0	0	0
1997	5.54	5.54	0.03	5.49	0.02	0	0	0	0	0	0	0	0
1998	5.45	5.45	0.02	5.41	0.02	0	0	0	0	0	0	0	0

Table 4. Emission of N_2O (kt) from Animal Grazing.

	Snap 1:	10 Agriculture											
	Snap 2:	1001 Cultures with fertilisers						1002 Cultures without fertilisers					
	Snap 3:		100101	100102	100104	100105	100106		100201	100202	100204	100205	100206
Year	10 Total	1001 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	1002 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows
1990	1.27	1.22	0	0	0	1.22	0	0	0	0	0	0.05	0
1991	1.25	1.17	0	0	0	1.17	0	0	0	0	0	0.08	0
1992	1.26	1.16	0	0	0	1.16	0	0	0	0	0	0.09	0
1993	1.22	0.99	0	0	0	0.99	0	0	0	0	0	0.23	0
1994	1.17	1.14	0	0	0	1.14	0	0	0	0	0	0.04	0
1995	1.21	1.19	0	0	0	1.19	0	0	0	0	0	0.02	0
1996	1.23	1.21	0	0	0	1.21	0	0	0	0	0	0.02	0
1997	0.90	0.87	0	0	0	0.87	0	0	0	0	0	0.03	0
1998	0.83	0.80	0	0	0	0.80	0	0	0	0	0	0.04	0

Table 5. Emission of N_2O (kt) from Animal Fertiliser.

	Snap 1:	10 Agriculture											
	Snap 2:	1001 Cultures with fertilisers						1002 Cultures without fertilisers					
	Snap 3:		100101	100102	100104	100105	100106		100201	100202	100204	100205	100206
Year	10 Total	1001 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	1002 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows
1990	3.47	3.46	0.02	3.37	0.02	0.05	0	0.0102	0.0001	0.0076	0.0004	0.0021	0
1991	3.52	3.51	0.02	3.43	0.02	0.04	0	0.0138	0.0002	0.0103	0.0005	0.0028	0
1992	3.61	3.60	0.02	3.52	0.02	0.04	0	0.0141	0.0002	0.0106	0.0005	0.0029	0
1993	3.73	3.70	0.02	3.64	0.02	0.02	0	0.0236	0.0002	0.0181	0.0005	0.0048	0
1994	3.71	3.69	0.02	3.50	0.02	0.15	0	0.0237	0.0002	0.0181	0.0006	0.0048	0
1995	3.65	3.63	0.02	3.30	0.02	0.30	0	0.0240	0.0002	0.0186	0.0007	0.0045	0
1996	3.66	3.63	0.02	3.32	0.01	0.27	0	0.0281	0.0003	0.0220	0.0007	0.0052	0
1997	3.38	3.33	0.01	3.09	0.01	0.22	0	0.0478	0.0003	0.0401	0.0007	0.0067	0
1998	3.50	3.44	0.01	3.22	0.01	0.19	0	0.0588	0.0003	0.0485	0.0010	0.0090	0

Table 6. Emission of N_2O (kt) from N-fixation, Industrial Waste, Sewage Sludge, Evaporation of NH_3, Crop Residues and Histosols.

	Snap 1:	10 Agriculture											
	Snap 2:	1001 Cultures with fertilisers						1002 Cultures without fertilisers					
	Snap 3:		100101	100102	100104	100105	100106		100201	100202	100204	100205	100206
Year	10 Total	Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows
1990	10.12	10.10	0.05	9.99	0.06	0	0	0.0242	0.0003	0.0226	0.0012	0	0
1991	9.68	9.65	0.04	9.55	0.06	0	0	0.0305	0.0004	0.0288	0.0013	0	0
1992	8.26	8.24	0.04	8.15	0.05	0	0	0.0261	0.0004	0.0246	0.0011	0	0
1993	9.37	9.32	0.04	9.23	0.06	0	0	0.0476	0.0005	0.0458	0.0012	0	0
1994	8.90	8.86	0.05	8.76	0.05	0	0	0.0473	0.0006	0.0452	0.0015	0	0
1995	9.19	9.14	0.05	9.04	0.05	0	0	0.0534	0.0006	0.0509	0.0019	0	0
1996	8.96	8.90	0.05	8.82	0.04	0	0	0.0607	0.0007	0.0583	0.0018	0	0
1997	9.24	9.12	0.04	9.04	0.03	0	0	0.1205	0.0010	0.1175	0.0020	0	0
1998	9.47	9.33	0.04	9.25	0.04	0	0	0.1432	0.0009	0.1395	0.0029	0	0

Table 7: Emission of N_2O (kt) from leaching/runoff.

Snap 1: / Year	11 Other sources and sinks
1990	9.04
1991	8.78
1992	8.53
1993	8.27
1994	8.01
1995	7.76
1996	7.50
1997	6.87
1998	6.87

Table 8. Emissions of N_2O (kt) from agriculture soils.

Snap 1:		10 Agriculture												11 Other
Snap 2:		1001 Cultures with fertilisers						1002 Cultures without fertilisers						sources
Snap 3:			100101	100102	100104	100105	100106		100201	100202	100204	100205	100206	and sinks
Year	Total	1001 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	1002 Total	Permanent crops	Arable land crops	Market gardening	Grassland	Fallows	
1990	31.60	22.48	0.10	20.99	0.13	1.26	0	0.0877	0.0004	0.0302	0.0016	0.0554	0	9.04
1991	30.83	21.93	0.09	20.50	0.12	1.21	0	0.1244	0.0006	0.0391	0.0018	0.0830	0	8.78
1992	28.77	20.11	0.09	18.71	0.11	1.20	0	0.1325	0.0006	0.0352	0.0015	0.0952	0	8.53
1993	29.00	20.42	0.09	19.21	0.12	1.01	0	0.3039	0.0007	0.0639	0.0017	0.2376	0	8.27
1994	28.08	19.96	0.10	18.48	0.10	1.28	0	0.1077	0.0008	0.0633	0.0021	0.0415	0	8.01
1995	27.89	20.04	0.10	18.36	0.10	1.49	0	0.0954	0.0008	0.0695	0.0026	0.0226	0	7.76
1996	26.95	19.34	0.09	17.68	0.08	1.48	0	0.1118	0.0009	0.0802	0.0024	0.0282	0	7.50
1997	25.92	18.86	0.08	17.62	0.07	1.09	0	0.1954	0.0013	0.1577	0.0027	0.0337	0	6.87
1998	26.12	19.01	0.08	17.87	0.07	0.99	0	0.2388	0.0012	0.1880	0.0038	0.0458	0	6.87

Table 9. Emission of N_2O (kt) from manure managenment.

	Snap 1:	10 Agriculture	
	Snap 2:	1009 Manure management regarding nitrogen compounds	
	Snap 3:	100902	100903
Year	10 Total	Liquid systems	Solid storage
1990	1.49	0.21	1.28
1991	1.51	0.22	1.30
1992	1.55	0.22	1.33
1993	1.60	0.23	1.37
1994	1.60	0.23	1.37
1995	1.57	0.23	1.34
1996	1.57	0.23	1.35
1997	1.45	0.21	1.24
1998	1.50	0.22	1.29

Table 10. Livestock (heads).

	Snap 1:	10 Agriculture								
	Snap 2:	1004 Enteric Fermentation								
	Snap 3:	100401	100402	100404	100412	100403	100405			
	Snap 2:	1005 Manure management regarding organic compounds								
	Snap 3:	100501	100502	100503	100504	100505	100506	100507	100508	100509
		Dairy cows	Other cattle	Fattening pigs	Sows	Ovines	Horses	Laying hens	Broilers	Other poultry
Year	Note:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1990		753114	1485983	8593399	903820	158563	38215	5696000	9802000	751000
1991		741647	1479865	8854725	928002	188404	32036	5066746	10019726	846127
1992		711929	1477875	9454112	1001290	181893	27996	5639000	12620000	782000
1993		714109	1481384	10526814	1041004	157361	20439	5517310	13398733	981856
1994		699557	1405347	9931049	991563	144926	18454	6931807	12022629	897213
1995		702473	1387900	10068834	1015077	145225	17716	6088422	12584873	946164
1996		700745	1392611	9831317	1010236	170143	20161	6317421	12907056	663364
1997		670354	1333858	10314708	1068473	142408	38862	5645297	12510220	838044
1998		669059	1308308	11003102	1092037	156026	38200	4905837	13117505	650634

Explanation to the notes is in the text.

Table 11. Emissions of CH_4 (kt) from agriculture.

		Agriculture											
IPCC Table 4:		A Enteric fermentation					B Manure management						
Position:		A	A 1	A 3	A 6	A 8	B	B 1	B 3	B 6	B 8	B 9	B 13
Year	Total	Total	Cattle	Sheep	Horses	Swine	Total	Cattle	Sheep	Horses	Swine	Poultry	Biogas
1990	192.86	150.10	133.90	1.27	0.69	14.25	42.75	18.80	0.07	0.04	23.47	0.65	-0.28
1991	191.46	148.64	131.89	1.51	0.58	14.67	42.99	18.54	0.09	0.04	24.16	0.62	-0.46
1992	190.22	146.36	128.72	1.46	0.50	15.68	44.02	17.88	0.08	0.03	25.86	0.72	-0.56
1993	194.44	148.06	129.08	1.26	0.37	17.35	46.46	17.94	0.07	0.02	28.35	0.74	-0.67
1994	187.02	142.63	124.75	1.16	0.33	16.38	44.28	17.50	0.07	0.02	26.80	0.80	-0.91
1995	187.37	142.52	124.41	1.16	0.32	16.63	44.47	17.53	0.07	0.02	27.24	0.76	-1.15
1996	186.70	142.39	124.40	1.36	0.36	16.26	43.85	17.50	0.08	0.02	26.71	0.76	-1.23
1997	182.91	137.98	119.07	1.14	0.70	17.07	44.18	16.75	0.07	0.04	28.07	0.72	-1.47
1998	183.51	138.07	117.99	1.25	0.69	18.14	45.45	16.68	0.07	0.04	29.66	0.68	-1.68

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Appendix 12

CO_2 from plastic in municipal waste

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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 CO_2-emissionfactor for plastic in municipal waste.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
H_{plast} [1)] (GJ/ton)	42.7	42.7	42.7	42.7	42.7	42.7	42.7	42.7	43
H_{waste} [1)] (GJ/ton)	8.2	8.2	9	9.4	9.4	10	10.5	10.5	10.4
EMFp,w (kg/GJ in waste)	24.44	24.44	22.27	21.32	21.32	20.04	19.09	19.09	19.41

1) Ref.: The Danish Energy Agency

Table 2. CO_2-emissions from plastic in waste.

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998
Municipal waste (GJ)	15.006	16.255	17.325	18.963	19.979	24.088	25.394	27.632	27.323
CO_2 emission from plastic (kton)	366.74	397.27	385.78	404.29	425.95	482.74	484.68	527.39	530.21

Appendix 13

Changes with respect to the previous submissions

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1997: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**25,0**	**-929,0**	**-151,26**	**-2,89**	**0,00**	**0,00**	**-3,80**	**0,01**		**0,0027**	**0,0000**	**0,0001**	**0,0000**	**0,0007**
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**25,0**		**-0,01**	**0,00**	**0,01**	**0,00**	**-3,81**	**0,00**						
A Fuel Combustion		25,0		-0,01	0,00	0,00	0,00	-3,81	0,00						
B Fugitive Emissions from Fuels		0,0		0,00	0,00	0,00	0,00	0,00	0,00						
2 Industrial Processes		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**		**0,0027**	**0,0000**	**0,0001**	**0,0000**	**0,0007**
3 Solvent and Other Product Use		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
4 Agriculture		**0,0**		**-140,15**	**-2,41**	**0,00**	**0,00**	**0,00**	**0,00**						
5 Land-Use Change & Forestry			**-929,0**	**0,00**	**-0,49**	**0,00**	**0,00**	**0,00**	**0,00**						
6 Waste				**-11,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		0,00	0,00	0,00	0,00	0,00	0,00						
Memo Items:		**-524,3**		**0,38**	**0,56**	**259,78**	**22,88**	**8,16**	**132,12**						
International Bunkers		**0,0**		**0,38**	**0,56**	**259,78**	**22,88**	**8,16**	**132,12**						
Aviation		0,0		0,18	0,00	17,76	2,28	1,68	0,28						
Marine		0,0		0,20	0,56	242,00	20,58	6,48	131,84						
CO2 Emissions from Biomass		**-524,3**													

1996: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**420,8**	**-923,0**	**-146,03**	**-2,35**	**-0,50**	**-0,54**	**18,94**	**-1,51**		**-0,0048**	**0,0030**	**0,0001**		**-0,0020**
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**361**		**0,02**	**-0,01**	**-0,49**	**-0,54**	**-0,19**	**1,11**						
A Fuel Combustion		361,3		0,01	-0,01	-0,50	-0,54	-0,19	176,58						
B Fugitive Emissions from Fuels		-0,4		0,00		0,00	0,00	0,00	2,62						
2 Industrial Processes		**0,1**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**-2,61**		**-0,0048**	**0,0030**	**0,0001**		**-0,0020**
3 Solvent and Other Product Use		**59,8**			**0,00**			**19,13**							
4 Agriculture		**0,0**		**-134,95**	**-1,69**	**0,00**	**0,00**	**-8,95**							
5 Land-Use Change & Forestry			**-923,0**	**0,00**	**-0,65**	**0,00**	**0,00**	**8,95**							
6 Waste				**-11,10**	**0,00**										
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**-87,2**		**0,00**	**-0,06**	**-0,36**	**-0,03**	**-0,01**	**1,08**						
Aviation		-86,8		0,00	-0,06	-0,36	-0,03	-0,01	-0,01						
Marine		-0,5		0,00	0,00	0,00	0,00	0,00	1,09						
CO2 Emissions from Biomass															

1995: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**815,9**	**-10,0**	**-149,27**	**-0,93**	**-0,88**	**-93,07**	**2,19**	**-1,51**	**-0,0050**		**-0,0005**		**-0,0001**	
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**815,8**		**1,47**	**0,02**	**-0,88**	**-93,07**	**3,25**	**1,71**						
A Fuel Combustion		829,9		1,47	0,03	-0,87	-93,07	3,25	-1,51						
B Fugitive Emissions from Fuels		-14,1		0,00	0,00	0,00	0,00	0,00	3,22						
2 Industrial Processes		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**-3,02**	**-0,0050**		**-0,0005**		**-0,0001**	
3 Solvent and Other Product Use		**0,1**		**0,00**	**0,00**	**0,00**	**0,00**	**0,06**	**0,00**						
4 Agriculture		**0,0**		**-139,87**	**-0,31**	**0,00**	**0,00**	**-1,12**	**0,00**						
5 Land-Use Change & Forestry		**0,0**	**30,0**	**0,00**	**-0,65**	**0,00**	**0,00**	**0,00**	**0,00**						
6 Waste		**0,0**		**-10,87**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**10,2**		**0,08**	**0,00**	**0,05**	**0,00**	**0,79**	**0,00**						
Aviation															
Marine															
CO2 Emissions from Biomass															

1994: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**69,7**	**26,0**	**-145,85**	**-1,13**	**-1,15**	**-70,33**	**-1,13**	**1,21**	**0,0000**				**0,0000**	
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**70,4**		**1,28**	**0,00**	**-1,15**	**-70,33**	**0,17**	**6,01**						
A Fuel Combustion		411,3		1,29	0,00	-1,15	-70,32	0,17	1,22						
B Fugitive Emissions from Fuels		-340,9		0,00	0,00	0,00	0,00	0,00	4,79						
2 Industrial Processes		**-0,2**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**-4,26**	**0,0000**				**0,0000**	
3 Solvent and Other Product Use		**-0,5**		**0,00**	**0,00**	**0,00**	**0,00**	**-0,04**	**0,00**						
4 Agriculture		**0,0**		**-138,90**	**-0,46**	**0,00**	**0,00**	**-1,25**	**0,00**						
5 Land-Use Change & Forestry		**0,0**	**26,0**	**0,00**	**-0,67**	**0,00**	**0,00**	**0,00**	**0,00**						
6 Waste		**0,0**		**-8,24**	**0,00**	**0,00**	**0,00**	**0,00**	**-0,52**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**0,4**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Aviation															
Marine															
CO2 Emissions from Biomass															

1993: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**572,1**	**-3,0**	**-159,38**	**-0,12**	**5,76**	**-91,62**	**-1,28**	**1,61**	**0,000**				**0,000**	
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**566,8**		**1,31**	**0,03**	**5,76**	**-91,62**	**-1,60**	**1,61**						
A Fuel Combustion		566,9		1,32	0,03	5,76	-91,63	-1,60	1,61						
B Fugitive Emissions from Fuels		-0,1		0,00	0,00	0,00	0,00	0,00	0,00						
2 Industrial Processes		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,000**				**0,000**	
3 Solvent and Other Product Use		**5,3**		**0,00**	**0,00**	**0,00**	**0,00**	**1,68**	**0,00**						
4 Agriculture		**0,0**		**-153,73**	**-0,15**	**0,00**	**0,00**	**-1,37**	**0,00**						
5 Land-Use Change & Forestry		**0,0**	**21,0**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
6 Waste		**0,0**		**-6,96**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**-0,3**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Aviation															
Marine															
CO2 Emissions from Biomass															

1992: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**538,7**	**17,0**	**-149,75**	**-1,14**	**4,14**	**-116,85**	**-8,42**	**1,97**	**0,0000**				**0,0000**	
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**539,1**		**1,17**	**0,09**	**4,14**	**-116,85**	**-6,96**	**1,97**						
A Fuel Combustion		539,3		1,17	0,09	4,14	-116,85	-6,96	1,97						
B Fugitive Emissions from Fuels		-0,2		0,00	0,00	-0,01	0,00	0,00	0,00						
2 Industrial Processes		**0,5**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0000**				**0,0000**	
3 Solvent and Other Product Use		**-0,8**		**0,00**	**0,00**	**0,00**	**0,00**	**-0,14**	**0,00**						
4 Agriculture		**0,0**		**-144,19**	**-1,23**	**0,00**	**0,00**	**-1,34**	**0,00**						
5 Land-Use Change & Forestry		**0,0**	**17,0**	0,00	0,00	0,00	0,00	0,00	0,00						
6 Waste		**0,0**		**-6,74**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**0,2**		**0,00**	**0,00**	**0,00**	**-0,01**	**0,00**	**0,00**						
Aviation															
Marine															
CO2 Emissions from Biomass															

1991: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**576,2**	**12,0**	**-145,11**	**0,14**	**3,21**	**-135,80**	**-11,78**	**2,07**	**0,0000**				**-0,0150**	
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**576,6**		**1,09**	**0,10**	**3,21**	**-135,80**	**-10,26**	**2,07**						
A Fuel Combustion		577,0		1,09	0,10	3,21	-135,81	-10,26	2,07						
B Fugitive Emissions from Fuels		-0,4		0,00	0,00	0,00	0,00	0,00	0,00						
2 Industrial Processes		**0,1**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0000**				**-0,0150**	
3 Solvent and Other Product Use		**-0,5**		**0,00**	**0,00**	**0,00**	**0,00**	**-0,21**	**0,00**						
4 Agriculture		**0,0**		**-138,74**	**0,04**	**0,00**	**0,00**	**-1,32**	**0,00**						
5 Land-Use Change & Forestry		**0,0**	**12,0**	0,00	0,00	0,00	0,00	0,00	0,00						
6 Waste		**0,0**		**-7,46**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**0,4**		**-0,08**	**-73,85**	**65,76**	**5,45**	**-43,58**	**46,44**						
Aviation															
Marine															
CO2 Emissions from Biomass															

1990: Submission 2000 minus previously reported for TABLE 7B SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Sheet 1 of 1)

SHORT SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES (Gg)															
GREENHOUSE GAS SOURCE AND SINK CATEGORIES		CO2 Emissions	CO2 Removals	CH4	N2O	NOx	CO	NMVOC	SO2	HFCs		PFCs		SF6	
										P	A	P	A	P	A
Total National Emissions and Removals		**616,7**	**8,0**	**-142,89**	**0,43**	**-3,61**	**-149,00**	**-15,56**	**2,61**	**0,0000**				**-0,0150**	
1 Energy	Reference Approach(1)														
	Sectoral Approach(1)	**618,3**		**0,91**	**0,06**	**-3,61**	**-149,00**	**-13,97**	**2,60**						
A Fuel Combustion		618,3		0,91	0,05	-3,61	-149,00	-13,96	2,60						
B Fugitive Emissions from Fuels		0,0		0,00	0,00	0,00	0,00	0,00	0,00						
2 Industrial Processes		**-0,5**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,0000**				**-0,0150**	
3 Solvent and Other Product Use		**-1,2**		**0,00**	**0,00**	**0,00**	**0,00**	**-0,29**	**0,00**						
4 Agriculture		**0,0**		**-135,69**	**0,37**	**0,00**	**0,00**	**-1,31**	**0,00**						
5 Land-Use Change & Forestry		**0,0**	**8,0**	0,00	0,00	0,00	0,00	0,00	0,00						
6 Waste		**0,0**		**-8,10**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
7 Other (please specify)		**0,0**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**						
Memo Items:															
International Bunkers		**0,2**		**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**54,86**						
Aviation															
Marine															
CO2 Emissions from Biomass															