



National Environmental Research Institute
Ministry of the Environment · Denmark

Annual Danish Emissions Inventory Report to UNECE

Inventories 1990 - 2002

Research Notes from NERI No. 202

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*Research Notes from NERI No. 202
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Data sheet

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Abstract: This report is a documentation report on the emission inventories for Denmark as reported to the UNECE Secretariat under the Convention on Long Range Transboundary Air Pollution due by 15 February 2004. The report contains information on Denmark's emission inventories regarding emissions of (1) SO_x for the years 1980-2002, (2) NO_x, CO, NMVOC and NH₃ for the years 1985-2002; (3) Particulate matter: TSP, PM₁₀, PM_{2.5} for the years 2000-2002, (4) Heavy Metals: Pb, Cd, Hg, As, Cr, Cu, Ni, Se and Zn for the years 1990-2002, and (5) Polycyclic aromatic hydrocarbons (PAH): Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene for the years 1990-2002. Further, the report contains information on background data for emissions inventory.

Keywords: Keywords: Emission Inventory; Emissions; Projections; UNECE; EMEP; NO_x; CO; NMVOC; SO_x; NH₃; TSP; PM₁₀; PM_{2.5}; Pb; Cd; Hg; As; Cr; Cu; Ni; Se; Zn; Polycyclic aromatic hydrocarbons; Benzo(a)pyrene, Benzo(b)fluoranthene.

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Summary

I Background information on emission inventories

Annual report

This report is Denmark's Annual Emissions Inventory Report due May 2004 to the UNECE-Convention on Long-Range Transboundary Air Pollution (LRTAP). The report contains information on Denmark's inventories for all years from the base years of the protocols to 2002.

The gases reported under the LRTAP Convention are: SO₂, NO_x, NMVOC, CO, NH₃, As, Cd, Cr, Cu, Hg, Ni, Pb, Se, Zn, dioxiner/furaner, PAH's, TSP, PM_{2.5} and PM₁₀.

The annual emission inventory for Denmark is reported in the Nomenclature for Reporting (NFR) format as requested in the reporting guidelines. The complete sets of NFR files are given in the report.

The issues addressed in this report are: Trends in emissions, description of each NFR category, uncertainty estimates, recalculations, planned improvements and procedure for quality assurance and control. The structure of the report is, as far as possible, the same as the National Inventory Report to UNFCCC.

This report and the NFR tables are available to the public on the National Environmental Research Institute's homepage:

(http://www.dmu.dk/1_Viden/2_Miljoe-tilstand/3_luft/4_adaei/default_en.asp).

Responsible institute

The National Environmental Research Institute (NERI) under the Danish Ministry of Environment is responsible for the annual preparation and submission to the UNECE-LRTAP Convention of the Annual Danish Emissions Report and the inventories in the NFR Format in accordance with the Guidelines. NERI participates in meetings under the UNECE Task Force on Emission Inventories and Projections and the related expert panels where parties to the convention prepare the guidelines and methodologies on inventories.

II Trends in emissions

Acidifying gases

Figure S.1 shows the emission of Danish acidifying gases in terms of acid equivalents. In 1990 the relative contribution in acid equivalents was almost equal for the three gases. In 2002 the most important acidification factor in Denmark was nitrogen in the form of ammonia and the relative contributions were 7% for SO₂, 39% for NO_x and 54% for NH₃. However, regarding long-range transport of air pollution SO₂ and NO_x are still the most important pollutants.

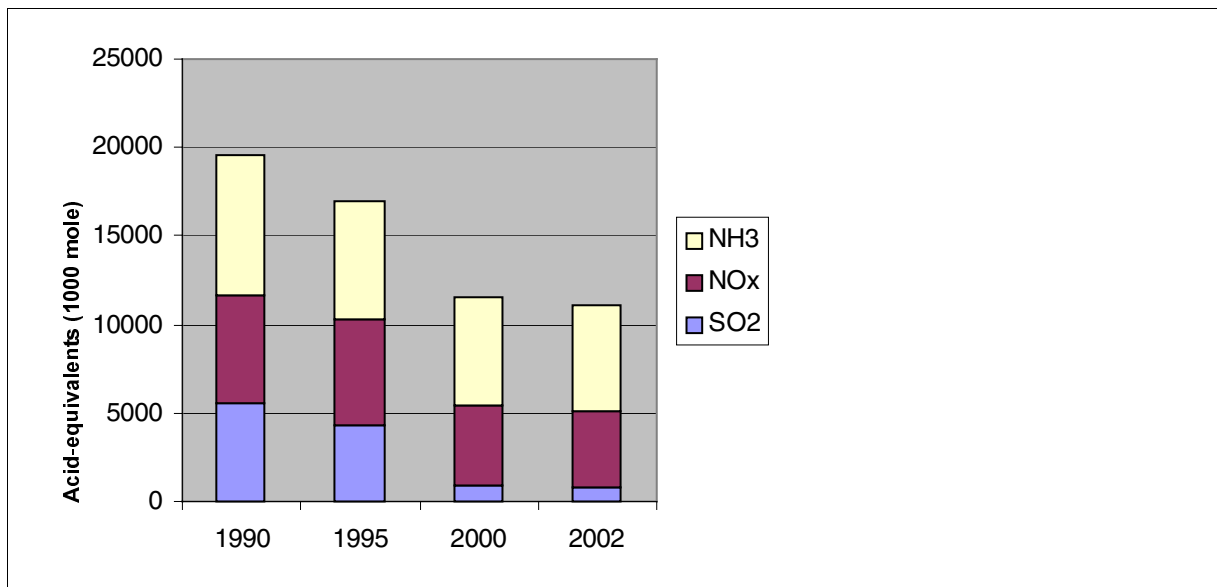


Figure S.1. Emissions of NH₃, NO_x and SO₂ in acid equivalents.

SO₂

The main part of the SO₂ emissions originates from combustion of fossil fuels – mainly coal and oil – on public power and district heating plants. From 1980 to 2002 the total emission has decreased by 94%. The large reduction is mainly due to installation of desulphurization plants and increasing use of fuels with lower content of sulphur in public power and district heating plants. Despite the large reduction of the SO₂ emissions these plants made up 43% of the total SO₂ emission in 2002. Also emissions from industrial combustion plants, non-industrial combustion plants and other mobile sources are important. National sea traffic (navigation and fishing) contributes with about 11% of the total SO₂ emission. This is due to the use of residual oils with high content of sulphur.

NO_x

Three sources dominate the emissions of NO_x. These sources are combustion in the energy industries (mainly public power and district heating plants), road transport and other mobile sources. The transport sector is the sector contributing the most to the emission of NO_x and in 2002 40% of the Danish emissions of NO_x originated from road transport, national navigation, railways and civil aviation. Also emissions from national fishing and off-road vehicles contribute significantly to the NO_x emission. For non-industrial combustion plants the main sources are combustion of gas oil, natural gas and wood in residential plants. The emissions from public power plants and district heating plants have decreased by 57% from 1985 to 2002. In the same period the total emission has decreased by 35%. The reduction is due to an increasing use of catalyst cars and installation of low-NO_x-burners and de-NO_x-units on power and district heating plants.

NH₃

Almost all atmospheric emissions of NH₃ result from agricultural activities. Only a minor part originates from road transport. This part is, however, increasing due to increasing use of catalyst cars. In 2002 the major part of the emission from agriculture stems from livestock manure (79%) occurring mainly during handling of the manure in stables and when spreading on fields. Other contributions come from crops (14%), artificial fertilisers (6%) and ammonia used for straw treatment (1%). The total ammonia emission has decreased by 29% from 1985 to 2001. This is due to the offensive national environmental policy during the last twenty years.

Other air pollutants

NMVOG

The emissions of NMVOG originate from many different sources and can be divided into two main groups: Incomplete combustion and evaporation. The main sources to NMVOG emissions from incomplete combustion processes are road vehicles and other mobile sources such as national navigation vessels and off-road machinery. Road transportation vehicles are still the main contributors even though the emissions have declined since the introduction of catalyst cars in 1990. The evaporative emissions mainly originate from use of solvents. The emissions from the energy industries have increased during the nineties because of an increasing use of stationary gas engines, which have much higher emissions of NMVOG than conventional boilers. The total anthropogenic emissions have decreased by 36% from 1985 to 2002, mainly due to an increasing use of catalyst cars and reduced emissions from use of solvents.

Before next submission to the LRTAP convention new methodologies for 'Use of Solvents' and 'Offshore activities' will be introduced and the emission estimates for these sectors are expected to increase.

CO

Even though catalyst cars were introduced in 1990, road transport still in 2002 has the dominant share of the total CO emission. Also other mobile sources and non-industrial combustion plants contribute significantly to the total emission of this pollutant. The drop in the emissions seen in 1990 was a consequence of a law prohibiting burning of agricultural waste on fields. The emission decreased by 23 % from 1990 to 2002, mainly because of decreasing emission from road transportation.

PAH's

The present emission inventory for PAH (poly aromatic hydrocarbons) includes the four PAH's reported to UNECE: Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd) pyrene. The most important sources to emissions of PAH are combustion of wood in the residential sector and road transportation. The increasing emissions in recent years are due to increasing combustion of wood in the residential sector.

Particulate Matter

The particulate matter (PM) emission inventory has been reported for the years 2000-2002. The inventory includes emission of particles TSP (Total Suspended Particles), emission of particles smaller than 10 µm (PM₁₀) and emission of particles smaller than 2.5 µm (PM_{2.5}).

The largest PM_{2.5} emission sources in 2002 are transport (35%) and other fuel combustion than energy industries and manufacturing industries (38%). For the latter the most important sources are residential plants (54%) and off-road vehicles and machinery in the agricultural/forestry sector (37%). For the transport sector exhaust emissions account for the major part (84%).

Before next submission the PM emission estimates for the residential sector will be recalculated according to new knowledge and the emission estimates for this sector are expected to increase considerable.

Heavy Metals

In general the most important sources of heavy metal emissions are combustion of fossil fuels and waste. The heavy metal emissions have decreased substantially the last years. The reductions from 1990 to 2002 are span from 16% and 96% for Cu and Pb, respectively. The reason for the reduced emissions is mainly the increased use of gas cleaning devices at power and district heating plants (including waste incineration plants). The large reduction

in the Pb emission is due to gradual shift towards unleaded gasoline being essential for catalyst cars.

III Recalculations and Improvements

In general considerable work is going on to improve the inventories. New investigations and research carried out in Denmark and abroad are as far as possible included as the bases for the emission estimates and included as data in the inventory databases. Further, the updates of the EMEP/CORINAIR Guidebook and the work in the Task Force on Emission Inventories and its expert groups are followed closely in order to get knowledge to be able to incorporate the best scientific information as the bases for the inventories. The further important references in this regard are the IPCC Guidelines and IPCC Good Practice Guidance.

The implementation of new results in inventories is made in a way so that improvements better reflect Danish conditions and circumstances. In improving the inventories care is taken to consider implementation of improvements for the whole time-series of inventories, to make it consistent. Such efforts lead to recalculation of previously submitted inventories.

For the national total emissions the general impact of the recalculations made in 2004 is small. The most important recalculations for the various sectors are mentioned below.

Stationary combustion

The emission factors for combined heat and power (CHP) Plants for SO₂, NO_x, NMVOC, CO, PM, HM and PAH has been improved. The improved emission estimates are based on a Danish project where emissions were measured on various types of CHP Plants. Also some fuel consumption rates are changed due to new estimates for off road machinery.

Road transport and air traffic

The emission factors for NO_x, NMVOC, CH₄, CO and PM for diesel used in railway transportation is improved as a result of new emission measurements. Diesel fuel use in the fishery sector, the Agriculture/Forestry/Industry/Household and gardening sectors are recalculated as a result of consultation with the Danish Energy Authority and the Technological Institute of Denmark.

Non-exhaust particulate emissions (tyre and brake wear and road abrasion) are reestimated according to the new EMEP/CORINAIR guidebook methodology chapter.

Industry

Emission estimates for several sources have been included in the inventory for industrial processes. The emission inventory now also covers emissions of NO_x and CO from production of container glass, NH₃, TSP, PM₁₀ and PM_{2.5} from production of glass wool, TSP, PM₁₀ and PM_{2.5} from production of mineral wool, NMVOC from production of chemical ingredients, TSP, PM₁₀ and PM_{2.5} from production of sugar, NH₃, TSP, PM₁₀ and PM_{2.5} from production of nitric acid/fertiliser, NO_x, NH₃, TSP, PM₁₀ and PM_{2.5} from production of catalysts/fertiliser and NMVOC from production of pesticides.

Agriculture

Activity data for sewage sludge and industrial waste used as fertiliser for the years 1990-2000 has been updated.

1 Introduction

1.1 Background information on emission inventories

Annual report

According to the Guidelines for Estimating and Reporting Emission Data/2002/7 prepared by the Task Force on Emission Inventories and Projections the country party, to the UNECE-Convention on Long-Range Transboundary Air Pollution, shall annually submit an informative report to the secretariat.

This report is Denmark's Annual Emissions Inventory Report due May 2004. The report contains information on Denmark's inventories for all years from the base years of the protocols to 2002.

The annual emission inventory for Denmark is reported in the Nomenclature for Reporting (NFR) format as requested in the reporting guidelines. The complete sets of NFR files are available in Annex 1.

The issues addressed in this report are: Trends in emissions, description of each NFR category, uncertainty estimates, recalculations, planned improvements and procedure for quality assurance and control. The structure of the report is, as far as possible, the same as the National Inventory Report to UNFCCC.

This report and NFR tables are available to the public on NERI's homepage (http://www.dmu.dk/1_Viden/2_Miljoe-tilstand/3_luft/4_adai/default_en.asp).

1.2 A description of the institutional arrangement for inventory preparation

The National Environmental Research Institute (NERI) under the Danish Ministry of Environment is responsible for the annual preparation and submission to the UNECE-LRTAP Convention of the Annual Danish Emissions Report and the inventories in the NFR Format in accordance with the Guidelines. NERI participates in meetings under the UNECE Task Force on Emission Inventories and Projections and the related expert panels where parties to the convention prepare the guidelines and methodologies on inventories.

The work concerning the annual emissions inventory is carried out in co-operation with other Danish ministries, research institutes, organisations and companies:

Danish Energy Authority, The Ministry of Economic and Business Affairs: Annual energy statistics in a format suitable for the emission inventory work and fuel consumption data for the large combustion plants.

Danish Environmental Protection Agency, The Ministry of the Environment: Database on waste.

Statistics Denmark, The Ministry of Economic and Business Affairs: Statistical yearbook, Sales Statistics for manufacturing industries and agricultural statistics.

Danish Institute of Agricultural Sciences, The Ministry of Food, Agriculture and Fisheries: Data on use of mineral fertiliser, feeding stuff consumption and nitrogen turnover in animals.

The Road Directorate, The Ministry of Transport. Number of vehicles grouped in categories corresponding to the EU classification, mileage (urban, rural, highway), trip speed (urban, rural, highway).

Danish Centre for Forest, Landscape and Planning, The Royal Veterinary and Agricultural University. Background data for Forestry and CO₂ uptake by forest.

Civil Aviation Agency of Denmark, The Ministry of Transport. City-pair flight data (aircraft type and origin and destination airports) for all flights leaving major Danish airports.

Danish Railways, The Ministry of Transport. Fuel related emission factors for diesel locomotives.

Danish companies: Audited Green accounts and direct information gathered from producers and agency enterprises

Until now the providing of data has been on a voluntary basis but more formal agreements are now being worked out.

1.3 Brief description of the process of inventory preparation

The background data (activity data and emission factors) for estimation of the Danish emission inventories is stored in central databases placed at NERI. The databases are in Access format and handled with software developed by the European Environmental Agency and NERI. As input to the databases various sub-models are used to estimate and aggregate the background data so they fit the format and level in the central databases. The methodologies and data sources used for the different sectors are described in Chapter 1.4 and Chapters 3 to 6. As are part of the QA/QC (quality assurance/quality control) plan a data structure is proposed that describes the pathway from collection of raw data to data compilation and modelling and final reporting (Illerup et al., 2004).

Figure 1.1 shows a schematic overview of the process of inventory preparation. Level 3 illustrates the level where the central databases are placed and level 4 illustrates the process where the reporting schemes are generated to UNECE/EMEP (the NFR format), UNFCCC and EU (the CRF). For data handling the software tool is CollectER (Pulles et al., 1999a) and for the CRF reporting the software tool is ReportER (Pulles et al., 1999b) and CRF-correction templates developed by NERI. In Table 1.2 is listed data files and program files used in the inventory preparation process.

Table 1.1 List of current data structure; data files and program files in use

Level	Name	Application	Path	Type	Input sources	Remarks
5	NFR-tables (UNECE/EMEP)	External report	I:\ROSPROJ\LUFT_EMI\2002_unece	MS Excel	NFR_Report_Automatisk.xls	NFR-format
5	CFR-tables (UNFCCC and EU)	External report	I:\ROSPROJ\LUFT_EMI\2002_EU	MS Excel	ReportER CRF-skabeloner CRF-Retteskabelon	CRF-format
4	CRF-Retteskabelon (correction templates)	Help tool	I:\ROSPROJ\LUFT_EMI\2002_EU\2002_EU_15March2004	MS Excel	manual input	Notations keys, etc.
4	CollectER	Management tool	I:\ROSPROJ\LUFT_EMI\programmer\CollectER\programfiler	(exe + mdb)	manual input	Version: 1.3.3 from Spirit
4	ReportER	Reporting tool	I:\ROSPROJ\LUFT_EMI\programmer\ReportER\programfiler	(exe + mdb)	CollectER databases ReportER database	Version: 3.1 Beta dbversion:4 from Spirit
3	dk1972.mdb.dkxxxx.mdb	Datastore	I:\ROSPROJ\LUFT_EMI\Collect	MS Access	CollectER MS Access	CollectER databases
4	NFR-template	Presentation template	I:\ROSPROJ\LUFT_EMI\Collect\v4\NFRsheets_original_koder.xls	MS Excel	none	
4	DMURep.mdb	Help tool	I:\ROSPROJ\LUFT_EMI\DMURep	MS Access	dk1972.mdb.dkxxxx.mdb ReportER database manual input	
4	NFR_Report_Automatisk.xls	Help tool, Report compiler	I:\ROSPROJ\LUFT_EMI\DMURep\Excel skabeloner	MS Excel	DMURep(_ny).mdb;qXLS_NFR_Report NFR-skabelon	
5	EMEP_NFR.xlt	Internal Time-series report	I:\ROSPROJ\LUFT_EMI\DMURep\Excel skabeloner	MS Excel	DMURep.mdb	

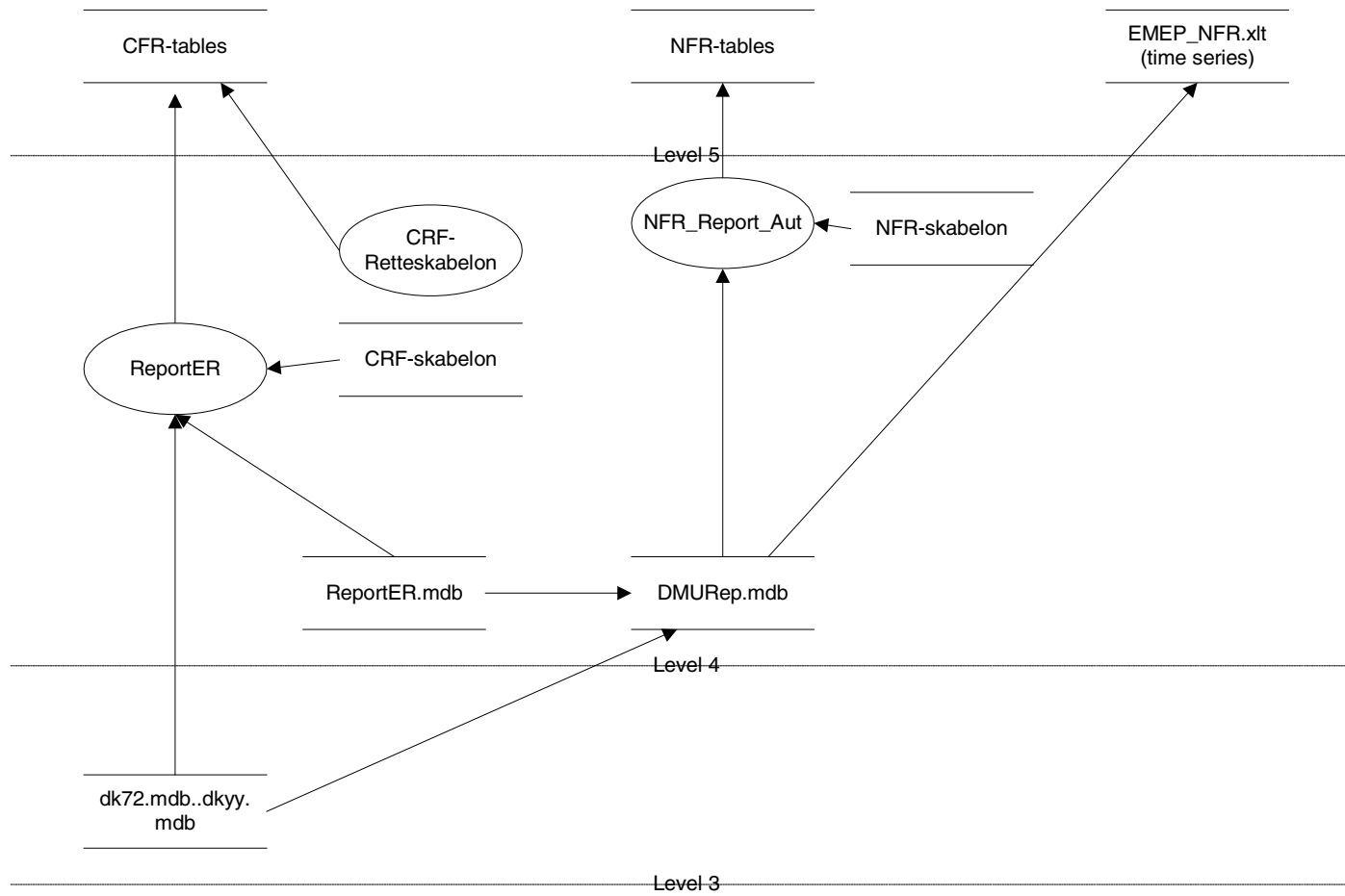


Figure 1.1 Schematic diagram of the process of inventory preparation.

1.4 Brief description of methodologies and data sources used

Denmark's air emission inventories are based on the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories (Houghton et al., 1997), the Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (Penman et al., 2000) and the CORINAIR methodology. CORINAIR (COoRdination of Information on AIR emissions) is a European air emission inventory programme for national sector-wise emission estimations harmonised with the IPCC guidelines. To ensure estimates as timely, consistent, transparent, accurate and comparable as possible, the inventory programme has developed calculation methodologies for most sub-sectors and software for storing and further data processing (Richardson, S. (Ed), 1999).

A thorough description of the CORINAIR inventory programme used for Danish emission estimations is given in Illerup et al. (2000). The CORINAIR calculation principle is to calculate the emissions as activities multiplied by given factors. Activities are numbers referring to a specific process generating emissions, while an emission factor is the mass of emissions per unit activity. Information on activities to carry out the CORINAIR inventory is mainly based on official statistics. The most consistent emission factors have been used, either as national values or default factors proposed by the CORINAIR methodology. The documentation on the CORINAIR methodology can be obtained from the "Joint EMEP/CORINAIR Atmospheric Emission Inventory Guidebook, Second edition (Richardson, S. (Ed), 1999). The documentation on the COPERT III is given in Ntziachristos et al. (2000).

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

The specific methodologies regarding Stationary Combustion Plants

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

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

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

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

Some of the large plants, e.g. power plants and municipal waste incineration plants are registered individually as large point sources and emission data from the actual plants are used. This enables use of plant specific emission factors that refers to emission measurements stated in annual environmental reports. At present the emission factors for NMVOC, CO₂, CH₄ and N₂O are however not plant specific, whereas emission factors of SO₂, NO_x, HM and PM often are.

Improved emission factors for cogeneration plants <25MW_e are implemented this year.

Please refer to Chapter 3 and Annex 2A for further information about emission inventories for stationary combustion plants.

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

Natural gas transmission and distribution:

Inventories of NMVOC and CH₄ emissions from gas transmission and distribution are based on annual environmental reports from the Danish gas transmission company, DONG, and on a Danish inventory for the years 1999-2002 reported by the Danish gas sector (transmission and distribution companies).

Off-shore activities:

Rough estimates for the emissions of NMVOC and CH₄ from extraction of oil and gas are made for the years 1994 to 2002. A project is going on to make consistency inventories from 1990.

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

Oil Refineries – Petroleum products processing:

The VOC emissions from petroleum refinery processes cover non-combustion emissions from feed-stock handling/storage, petroleum products processing, storage/handling and flaring of products. SO₂ is also emitted from the non-combustion processes and includes emissions from products processing and sulphur recovery plants. The emission calculations are based on information from the Danish refineries and the Energy statistic.

Please refer to Chapter 3 and Annex 2A for further information about fugitive emissions from fuels.

The specific methodologies regarding Transport

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

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

For air traffic the 2001 and 2002 estimates are made on a city-pair level, using flight data from the Danish Civil Aviation Agency (CAA-DK) and LTO and distance related emission factors from the CORINAIR guidelines (Tier 2 approach). For previous years the background data consist of LTO/aircraft type statistics from Copenhagen Airport and total LTO numbers from CAA-DK. With appropriate assumptions a consistent time-series of emissions is produced back to 1990 using also the findings from a Danish city-pair emission inventory in 1998.

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

The most thorough recalculations have changed the estimates for the navigation and agriculture/forestry/fisheries sectors. In general terms the new estimates rely on a revised fuel

allocation for small boats, non-road working machinery and equipment used in the two sectors. For railways updated emission factors for diesel are used based on real emission measurements carried out by the Danish Railways.

For transport in 2002 the CO emissions are determined with lowest uncertainty, followed by the SO₂, NMVOC, NO_x and TSP with increasing levels of uncertainties. The uncertainties are 45,46, 51, 53 and 59%, respectively. The uncertainties for the 1990-2002 emission trends are 8, 6, 15, 7 and 9% for the emissions in the same consecutive order. For NH₃, heavy metals and POPs the 2002 emissions have uncertainty levels of between 700 and 1000%. In this case the emission trend uncertainties are significantly lower, still large fluctuations exist between the calculated values for the different emission components. The smallest and largest uncertainties are 8 (Benzo(b) flouranthene) and 139% (Benzo(k) flouranthene).

Please refer to Chapter 3 and Annex 2B for further information about emissions from transport.

The specific methodologies regarding Industrial Processes

Energy consumption associated with industrial processes and the emissions thereof is included in the inventory for stationary combustion plants except for the cement industry. This is due to the overall use of energy balance statistics for the inventory.

Mineral products

The sub-sector includes production of cement, lime, container glass/glass wool, mineral wool and other production. The activity data as well as emission data are primarily based on information from the "Green National Accounts" (In Danish: "Grønne regnskaber") worked out by companies according to obligations in Danish law. The published information is supplemented with information obtained directly from companies or by use of standard emission factors. The distribution of TSP between PM₁₀ and PM_{2.5} is based on European average data.

Chemical industry

The sub-sector includes production of nitric acid, catalysts, fertilisers, and pesticides. The activity data as well as emission data are based on information from the companies as accounted for and published in the "Green National Accounts" combined with information obtained by contact to the companies. The distribution of TSP between PM₁₀ and PM_{2.5} is based on European average data.

Metal production

The sub-sector includes production of steel sheets and bars, cast iron, aluminium, lead and lead products and various other metal products. The activity data as well as emission data for the steelwork are based on information from the companies as accounted for and published in the "Green National Accounts" combined with information obtained by contact to the companies. The activity data for the other processes are based on information from Statistics Denmark combined with Danish average emission factors and standard emission factors. The distribution of TSP between PM₁₀ and PM_{2.5} is based on European average data.

Other production

The sub-sector includes breweries. The activity data is obtained from Statistics Denmark and the emission factors are obtained from the IPCC-guideline.

Please refer to Chapter 4 for further information about industrial processes.

The specific methodologies regarding Solvents (3)

The emission inventory for 'Solvents' is based on reports from the Danish Industry on emissions from various industrial sectors. The reporting is not annual and linear interpolation is used between the reporting years. It is important to notice that not all the use of solvents are

included in this agreement and no activity data has been available. A work is going on to improve the emission estimates.

Please refer to Chapter 5 for further information about emission inventories for solvents.

The specific methodologies regarding Agriculture (4)
(NFR: 4B, 4D, 4F)

The emissions from the agricultural sector include emissions of particulate matter and ammonia. The emissions are registered in NFR tables 4B Manure Management and 4D Agricultural Soils. Table 4F Field Burning of Agricultural Wastes is only completed until 1989 because burning of plant residue has been prohibited since 1990.

The calculation of the ammonia emission is based on the EMEP-CLRTAP Emission Inventory Guidebook. In Denmark a model-based system is applied for calculation of ammonia emissions, particulate matter and greenhouse gases. This model called DIEMA (Danish Integrated Emission Model for Agriculture), data on activity and emissions are collected, evaluated and discussed in close corporation with the Danish Institute of Agricultural Sciences and the Danish Agricultural Advisory Service National Centre.

Presently there are no guidelines for estimation of particulate matter from the agricultural sector. The estimation of particular emission is based on investigations of North European stables (Takai et al., 1998) and the CEPMEIP database established by TNO.

The number of animals and data concerning the land-use and crop yield are taken from the Agricultural Statistic published by Statistics Denmark (2003). The emission factors used to calculate the emissions are primarily based on information from the Danish Institute of Agricultural Science and the Danish Agricultural Advisory Service National Centre. Furthermore, activity data from the Danish Environmental Protection Agency and the Danish Plant Directorate is used.

The uncertainties for ammonia emissions from manure management and agricultural soils have been estimated. The estimated emissions for particulate matter are connected with high uncertainties, which is estimated to be several hundred per cent. To ensure the data quality, activity data and data for estimation of emission factors are collected and discussed in corporation with specialists and researcher at different institutes and research sections. It means that the emission inventories are evaluated continuously according to the latest knowledge and information. Furthermore, time-series of both emission factors and activity data are prepared and considerably variations are checked and revised.

In relation to the estimation of PM emissions it is planned to include dust emission from arable farming, which can be a considerable source.

Please refer to Chapter 6 and Appendix 2C for further information about emission inventories for agriculture.

1.5 Information on QA/QC plan including verification and treatment of confidential issues where relevant

A first draft for implementing a Quality Control (QC) and Quality Assurance (QA) plan for greenhouse gas emission inventories performed by the Danish National Environmental Research Institute is described in the Danish National Inventory Report to UNFCCC (Illerup et al., 2004). The plan is in accordance with the guidelines provided by the United Nations Framework Convention on Climate Changes (UNFCCC) and the Good Practice Guidance

and Uncertainty Management in National Greenhouse Gas Inventories (IPCC). The plan is also - to some extent - going to include the gases reported to UNECE-CLRTAP.

In the preparation of Denmark's annual emission inventory several quality control (QC) procedures have already been carried out and the QA/QC plan will future improve this activity.

The Danish Tier 1 QC includes:

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

1.6 General uncertainty evaluation, including data on the overall uncertainty for the inventory totals

The uncertainty estimates are based on the simple tier 1 approach in the EMEP/CorinAir Good Practice Guidance for LRTAP Emission Inventories (Pulles & Aardenne 2002).

The uncertainty estimates are based on emission data for the base year and year 2002 and on uncertainties for activity rates and emission factors for each of the main SNAP sectors. For particulate matter year 2000 is considered as base year but for all other pollutants the base year is 1990.

Uncertainty estimates include uncertainty of the total emission as well as uncertainty of the trend. The estimated uncertainties are shown in Table 1.2.

Table 1.2 Danish uncertainty estimates, 2002

Pollutant	Uncertainty Total emission [%]	Trend 1990 ¹)-2002 [%]	Uncertainty Trend [%-age points]
SO ₂	9	-86	±0,9
NO _x	33	-30	±4,6
NMVOC	37	-29	±14
CO	34	-22	±8
NH ₃	29	-24	±17
TSP ¹⁾	279	0,2	±49,1
As	134	-49	±14
Cd	234	-43	±61
Cr	144	-75	±27
Cu	720	-16	±183
Hg	198	-63	±34
Ni	162	-46	±11
Pb	288	-96	±35
Se	126	-58	±22
Zn	204	-35	±206
Benzo(b)fluoranthene	951	50	±34
Benzo(k)fluoranthene	909	55	±55
Benzo(a)pyrene	969	48	±12
Indeno(1,2,3-c,d)	958	29	±25

1. The base year for PM is 2000

1.7 General assessment of the completeness

The Danish emissions inventory due 15 February 2004 includes all sources identified by the EMEP/CORINAIR Guidebook except the following:

Industrial processes

- ◆ Mineral products (NFR 2A): The inventory will be improved regarding completion of pollutants included. Especially glass wool, mineral wool, chemical ingredients, and production of sugar will be extended. The incomplete time-series will also be completed in the next inventory.
- ◆ Chemical industry (NFR 2B): The time-series for emission of NO_x and NH₃ from production of catalysts and fertilisers are planned to be completed. The distribution between energy and process related NO_x will be investigated further.
- ◆ Metal production (NFR 2C): The time-series will be completed in the next inventory. For especially secondary aluminium and zinc production potential emissions of heavy metals will be investigated.
- ◆ Other production (NFR 2D): The time-series for emission of NMVOC from the production of beer are planned to be completed. Furthermore, production of bread and other food products are planned to be included in the next inventory.

Agriculture

- ◆ It is planned to include PM emissions from arable farming.
- ◆ The PM emission from stables will be included for the years 1985 to 1999.

In response to review of previous submissions, the use of notation key in the Danish NFR-tables has been improved and extended.

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2 Trends in Emissions

2.1 Acidifying gases

Acid deposition of sulphur and nitrogen compounds mainly derives from emissions of SO_2 , NO_x and NH_3 . The effects of acidification show up in a number of ways, including defoliation and reduced vitality of trees, declining fish stocks in acid-sensitive lakes and rivers.

SO_2 and NO_x can be oxidised into sulphate (SO_4^-) and nitrate (NO_3^-) - either in the atmosphere or after deposition - resulting in the formation of two and one H^+ , respectively. NH_3 may react with H^+ to form ammonium (NH_4^+) and by nitrification in soil NH_4^+ is oxidised to NO_3^- and H^+ are formed.

Weighting the individual substances according to their acidification effect total emissions in terms of acid equivalents can be calculated as:

$$\text{Acidification index} = \frac{m_{\text{SO}_2}}{M_{\text{SO}_2}} \cdot 2 + \frac{m_{\text{NO}_x}}{M_{\text{NO}_x}} + \frac{m_{\text{NH}_3}}{M_{\text{NH}_3}} = \frac{m_{\text{SO}_2}}{64} \cdot 2 + \frac{m_{\text{NO}_x}}{46} + \frac{m_{\text{NH}_3}}{17}$$

where m_i is the emission of pollutant i in ton

M_i is the mole weight [ton/Mmole] of pollutant i

The actual effect of the acidifying substances depends on a combination of two factors: The amount of acid deposition and the natural capacity of the terrestrial or aquatic ecosystem to counteract the acidification. In areas where the soil minerals easily weather or have a high chalk content, acid deposition will be relatively easily neutralised.

Figure 2.1 shows the emission of Danish acidifying gases in terms of acid equivalents. In 1990 the relative contribution in acid equivalents was almost equal for the three gases. In 2002 the most important acidification factor in Denmark was nitrogen in the form of ammonia and the relative contributions for SO_2 , NO_x and NH_3 were 7%, 39% and 54%, respectively. However, regarding long-range transport of air pollution SO_2 and NO_x are still the most important pollutants.

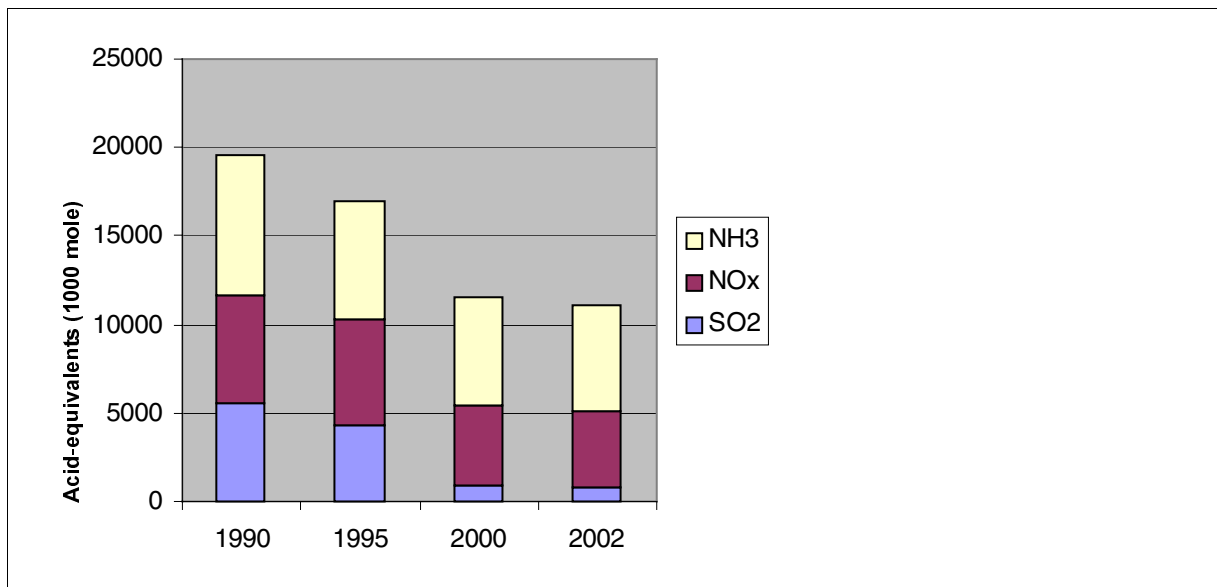


Figure 2.1. Emissions of NH₃, NO_x and SO₂ in acid equivalents.

2.2 Description and interpretation of emission trends by gas

SO₂

The main part of the SO₂ emissions originates from combustion of fossil fuels – mainly coal and oil – on public power and district heating plants. From 1980 to 2002 the total emission has decreased by 94%. The large reduction is mainly due to installation of desulphurization plants and use of fuels with lower content of sulphur in public power and district heating plants. Despite the large reduction of the SO₂ emissions these plants made up 43% of the total SO₂ emission in 2002. Also emissions from industrial combustion plants, non-industrial combustion plants and other mobile sources are important. National sea traffic (navigation and fishing) contributes with about 11% of the total SO₂ emission. This is due to the use of residual oils with high content of sulphur.

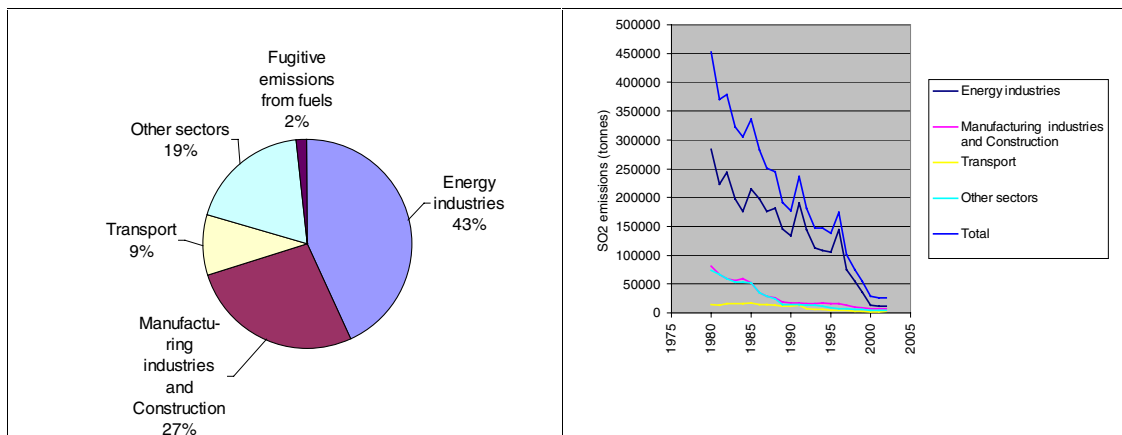


Figure 2.2. SO₂ emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

NO_x

The three largest sources are almost equal in size. These are combustion in the energy industries (mainly public power and district heating plants), road transport and other mobile sources. The transport sector is the sector contributing the most to the emission of NO_x and in 2002 40% of the Danish emissions of NO_x originated from road transport, national navigation, railways and civil aviation. Also emissions from national fishing and off-road vehicles contribute significantly to the NO_x emission. For non-industrial combustion plants the main sources are combustion of gas oil, natural gas and wood in residential plants. The emissions

from public power plants and district heating plants have decreased by 57% from 1985 to 2002. In the same period the total emission has decreased by 35%. The reduction is due to an increasing use of catalyst cars and installation of low- NO_x -burners and de- NO_x -units on power and district heating plants.

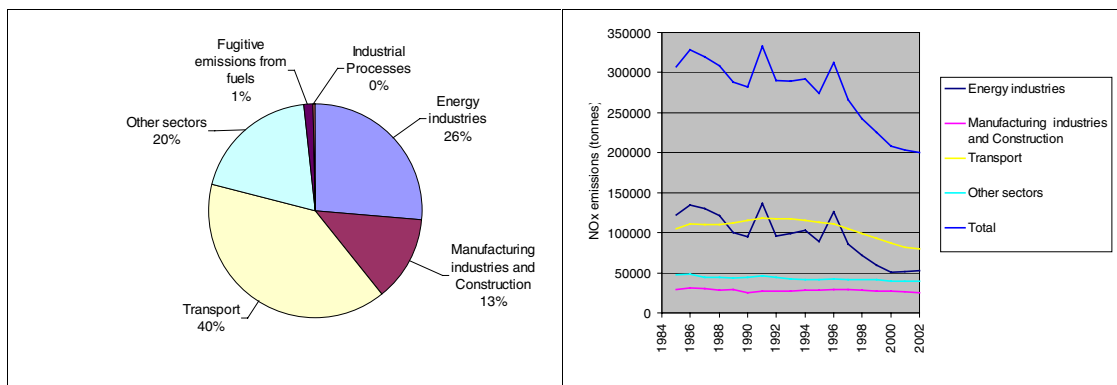


Figure 2.3. NO_x emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

NH_3

Almost all atmospheric emissions of NH_3 result from agricultural activities. Only a minor part originates from road transport. This part is, however, increasing due to increasing use of catalyst cars. The major part of the emission from agriculture stems from livestock manure (79%) and the biggest losses of ammonia occur during the handling of the manure in stables and when spreading on fields. Other contributions come from crops (14%), artificial fertilisers (6%) and ammonia used for straw treatment (1%). The total ammonia emission has decreased by 29% from 1985 to 2001. This is due to the offensive national environmental policy during the last twenty years. Due to the Action Plan on the Aquatic Environment and the Ammonia Action Plan a series of measures to prevent loss of nitrogen in the agricultural production have been initiated. The measures have included demands on improved utilisation of nitrogen in husbandry manure, ban against application of husbandry manure in winter, broadspreading of manure is prohibited, demand on establishment of second growth, regulation of the number of animals per hectare and a ceiling for the supply of nitrogen to crops. So despite an increase in the livestock production the evaporation of ammonia has been reduced considerably.

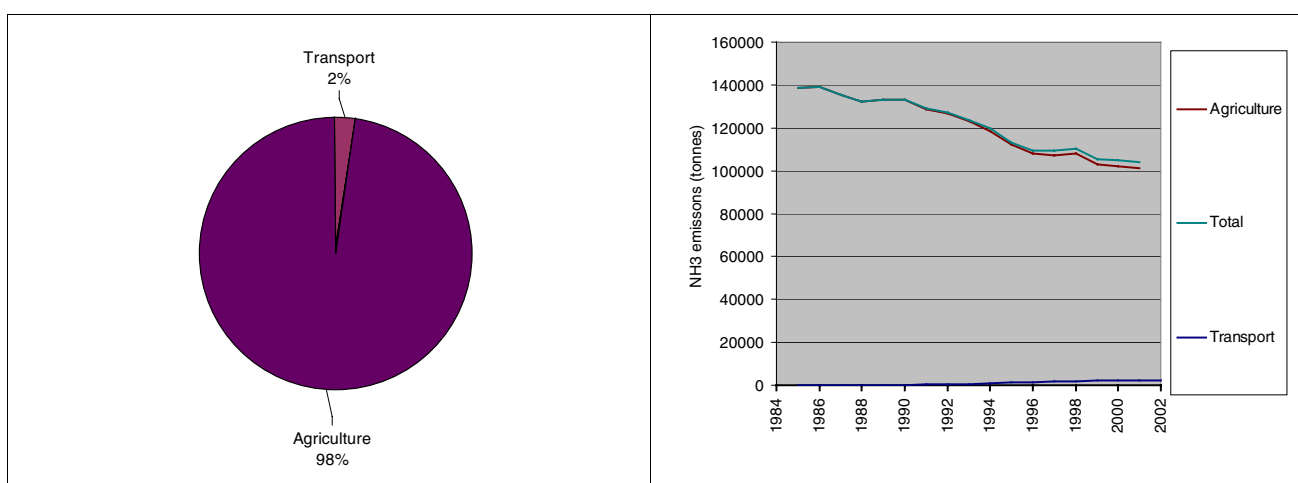


Figure 2.4. NH_3 emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

2.3 Other air pollutants

NMVOC

The emissions of NMVOC originate from many different sources and can be divided into two main groups: Incomplete combustion and evaporation. The main sources to NMVOC emissions from incomplete combustion processes are road vehicles and other mobile sources such as national navigation vessels and off-road machinery. Road transportation vehicles are still the main contributors even though the emissions have declined since the introduction of catalyst cars in 1990. The evaporative emissions mainly originate from use of solvents. The emissions from the energy industries have increased during the nineties because of an increasing use of stationary gas engines, which have much higher emissions of NMVOC than conventional boilers. The total anthropogenic emissions have decreased by 36% from 1985 to 2002, mainly due to an increasing use of catalyst cars and reduced emissions from use of solvents.

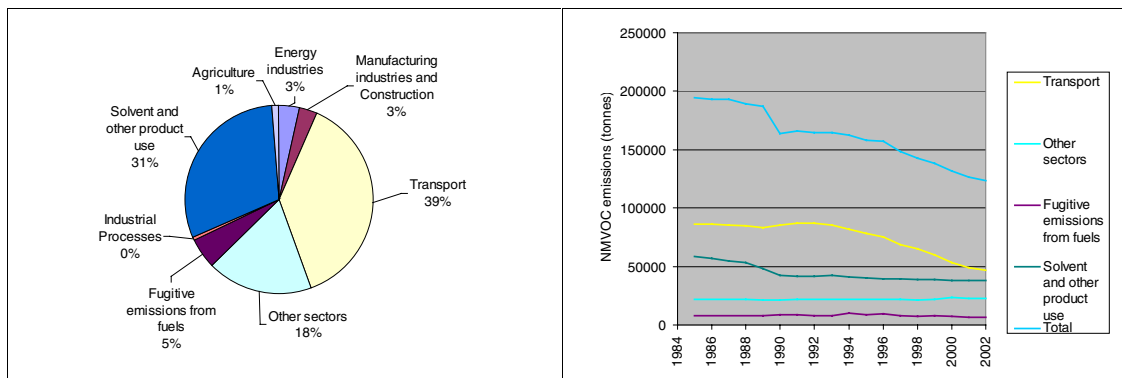


Figure 2.5. NMVOC emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

CO

Even though catalyst cars were introduced in 1990, road transport still has the dominant share of the total CO emission. Also other mobile sources and non-industrial combustion plants contribute significantly to the total emission of this pollutant. The drop in the emissions seen in 1990 was a consequence of a law prohibiting burning of agricultural waste on fields. The emission decreased by 23 % from 1990 to 2002, mainly because of decreasing emission from road transportation.

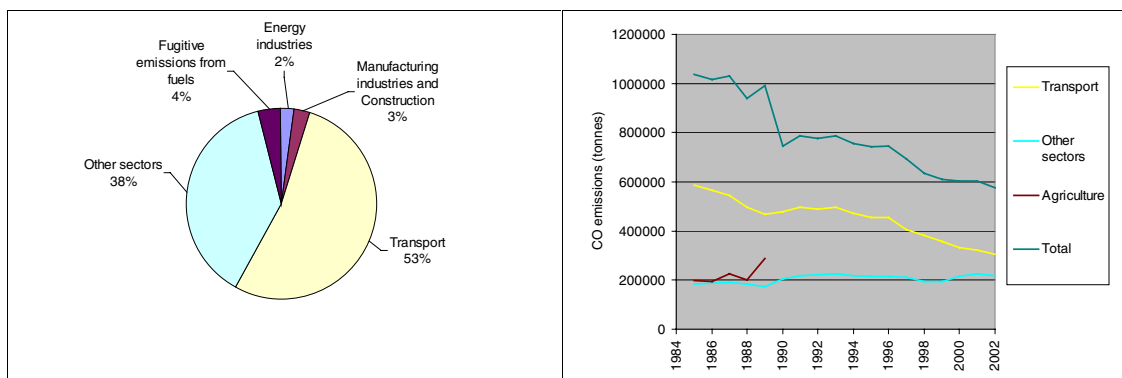


Figure 2.6. CO emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

PAH's

The present emission inventory for PAH (poly aromatic hydrocarbons) includes the four PAH's reported to UNECE: Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd) pyrene. The most important sources to emission of PAH are combus-

tion of wood in the residential sector and road transportation. The increasing emission in recent years is due to increasing combustion of wood in the residential sector.

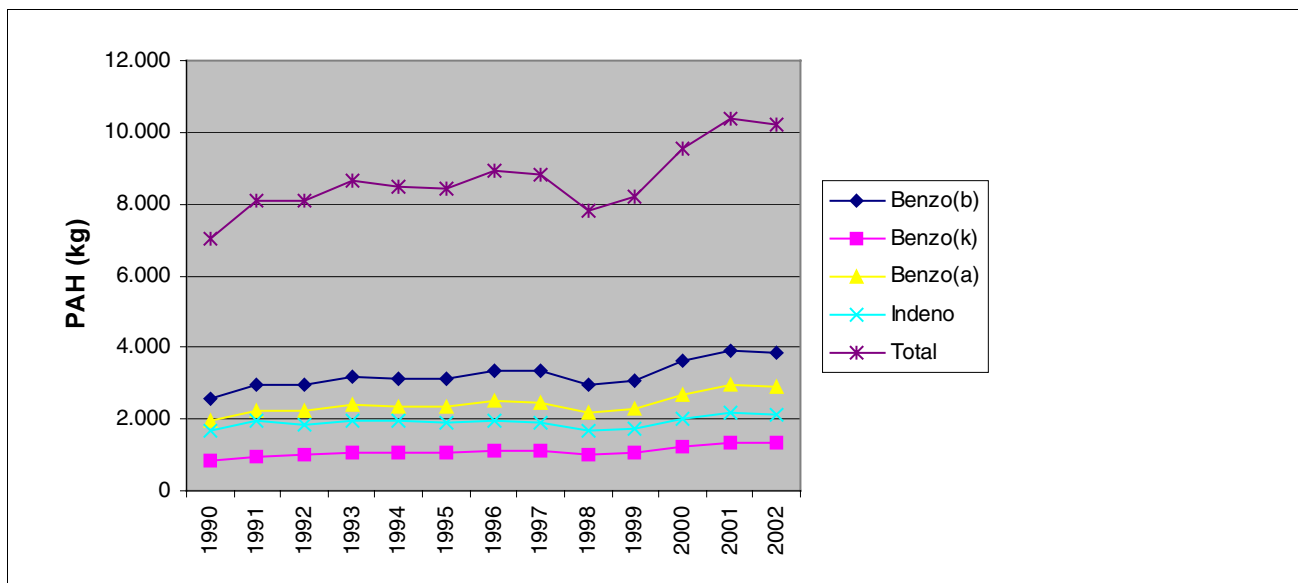


Figure 2.7. PAH emissions. Time-series for 1990 to 2002.

Particulate Matter

The particulate matter (PM) emission inventory has been reported for the years 2000-2002. The inventory includes total emission of particles TSP (Total Suspended Particles), emission of particles smaller than 10 μm (PM_{10}) and emission of particles smaller than 2.5 μm ($\text{PM}_{2.5}$).

The largest $\text{PM}_{2.5}$ emission sources are transport (35%) and other fuel combustion than energy industries and manufacturing industries (38%). For the latter the most important sources are residential plants (54%) and off-road vehicles and machinery in the agricultural/forestry sector (37%). For the transport sector exhaust emissions account for the major part (84%).

The largest TSP emission sources are agriculture and transport. The TSP emission from transport includes both exhaust emissions and the non-exhaust emissions from brake and tyre wear and road abrasion. The non-exhaust emissions account for 16% of the TSP emission from transport.

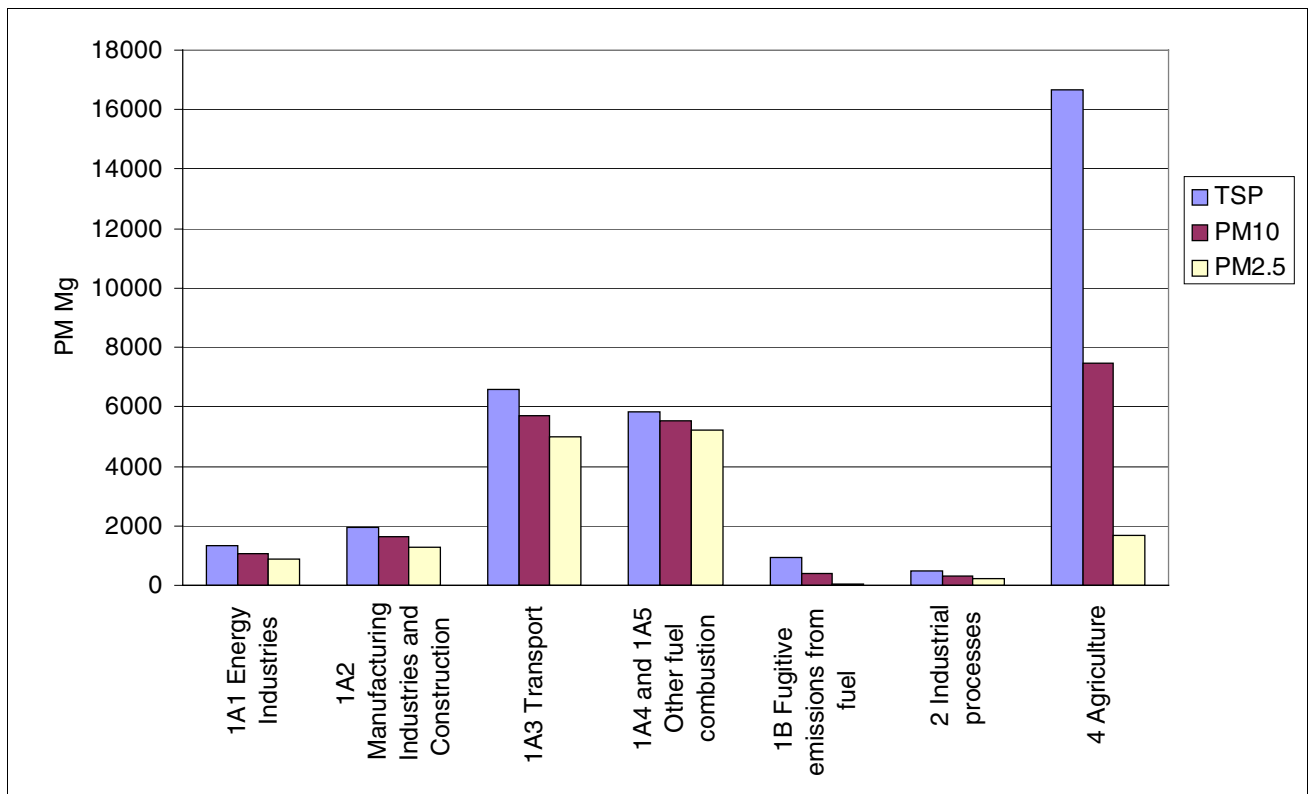


Figure 2.8. PM emissions.

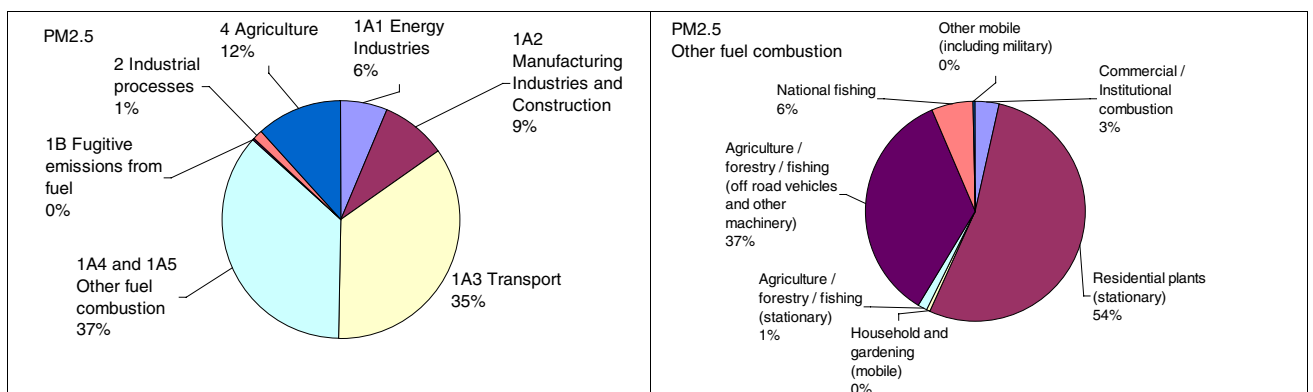


Figure 2.9. PM_{2.5} emissions. Distribution on main sectors and on sub-sectors for other fuels combustion for 2002.

Heavy Metals

In general the most important sources of heavy metal emissions are combustion of fossil fuels and waste. The heavy metal emissions have decreased substantially the last years. The reductions are span from 16% and 96% for Cu and Pb, respectively. The reason for the reduced emissions is mainly the increased use of gas cleaning devices at power and district heating plants (including waste incineration plants). The large reduction in the Pb emission is due to gradual shift towards unleaded gasoline being essential for catalyst cars.

Table 2.1. Emissions of heavy metals.

(Kg)	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
1990	1510	1167	6490	10341	3461	25413	123163	4467	36157
2002	767	664	1638	8682	1186	13378	5254	1881	23542
Reduction in %	49	43	75	16	66	47	96	58	35

According to the UNECE Heavy Metal Protocol the priority metals are Pb, Cd and Hg and the objective is to reduce the emissions of these heavy metals.

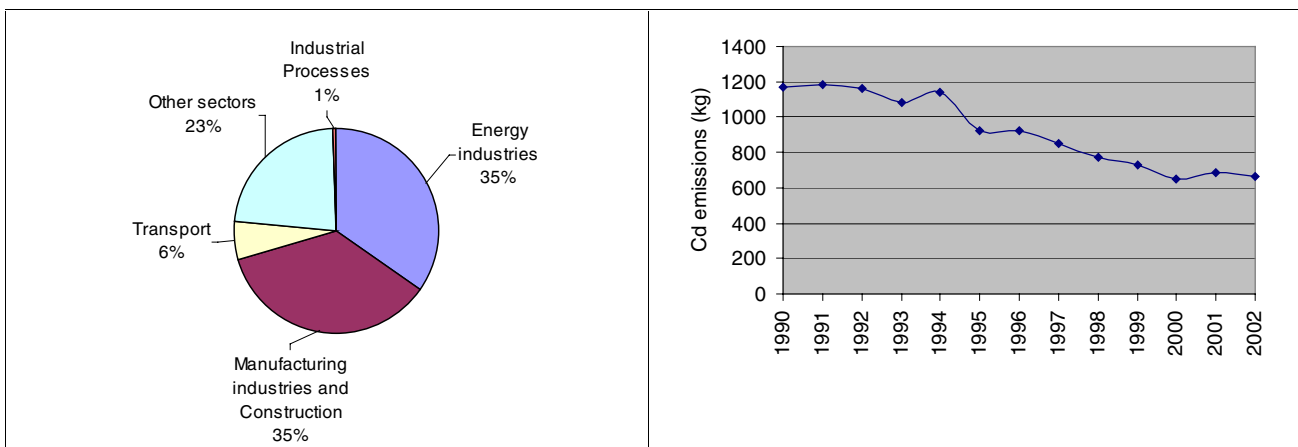


Figure 2.10. Cd emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

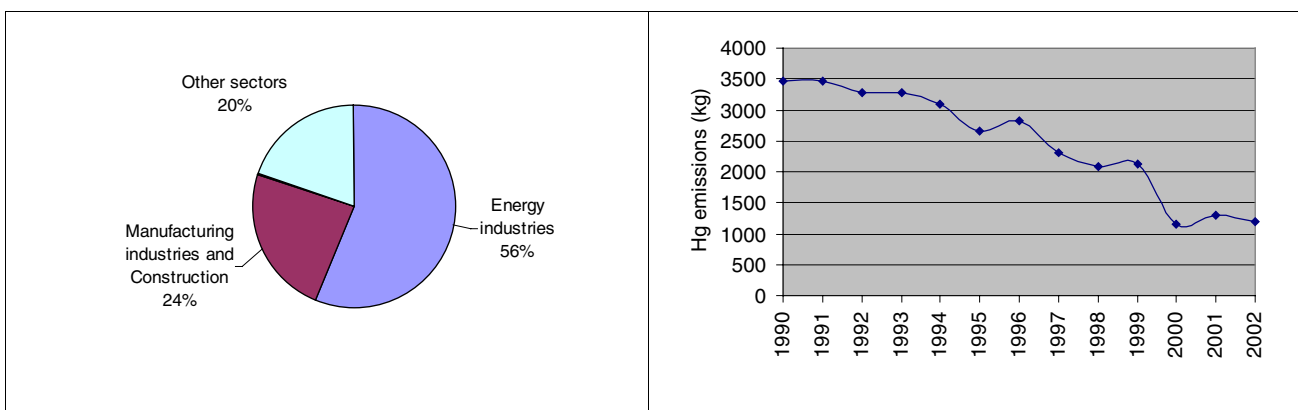


Figure 2.11. Hg emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

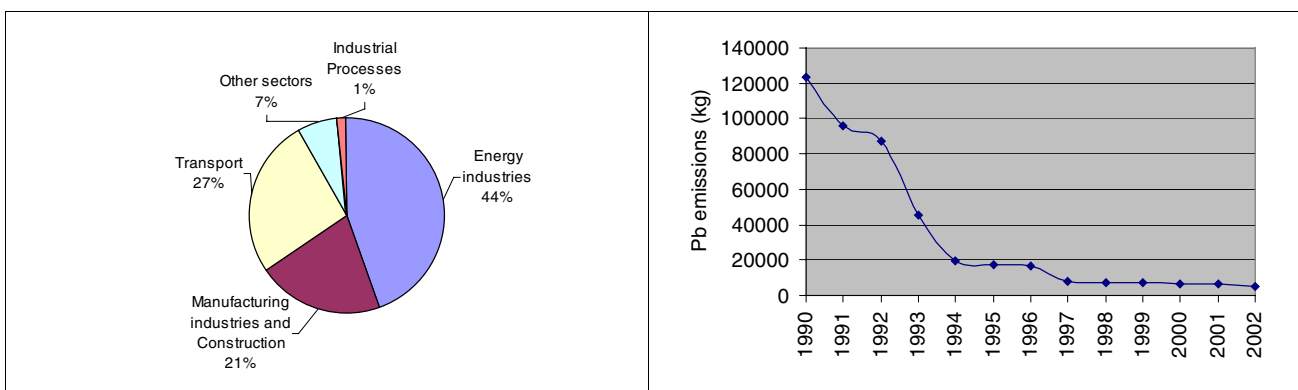


Figure 2.12. Pb emissions. Time-series for 1990 to 2002 and distribution on main sectors for 2002.

3 Energy (NFR sector 1)

3.1 Overview of the sector

The energy sector is reported in three main chapters:

3.2 Stationary combustion plants (NFR sector 1A1, 1A2 and 1A4)

3.3 Transport (NFR sector 1A2, 1A3, 1A4 and 1A5)

3.4 Fugitive emissions (NFR sector 1B)

Emissions from the industrial sectors that are based on production data rather than fuel consumption rates are discussed in Chapter 4 (*Industry*). The emissions are reported in NFR sector 1A2. Emissions from the full fuel consumption in the industrial sector are included in the data presented in Chapter 3.2 *Stationary Combustion*. Emissions from the following industrial subsectors are included in NFR sector 1A2:

- ◆ 1A2a Iron and Steel
- ◆ 1A2b Non-ferrous Metals
- ◆ 1A2f Container glass production
- ◆ 1A2f Cement production
- ◆ 1A2f Lime production
- ◆ 1A2f Glass wool
- ◆ 1A2f Mineral wool

Table 1 shows detailed source categories for the energy sector and plant category in which the sector is discussed in this report.

Table 1 NFR energy sectors and relevant chapters

NFR id	NFR sector name	Chapter
1	Energy	Stationary combustion, Transport, Fugitive, Industry
1A	Fuel Combustion Activities	Stationary combustion, Transport, Industry
1A1	Energy Industries	Stationary combustion
1A1a	Electricity and Heat Production	Stationary combustion
1A1b	Petroleum Refining	Stationary combustion
1A1c	Solid Fuel Transf./Other Energy Industries	Stationary combustion
1A2	Fuel Combustion Activities/Industry (ISIC)	Stationary combustion, Transport, Industry
1A2a	Iron and Steel	Stationary combustion, Industry
1A2b	Non-Ferrous Metals	Stationary combustion, Industry
1A2c	Chemicals	Stationary combustion
1A2d	Pulp, Paper and Print	Stationary combustion
1A2e	Food Processing, Beverages and Tobacco	Stationary combustion
1A2f	Other (please specify)	Stationary combustion, Transport, Industry
1A3	Transport	Transport
1A3a	Civil Aviation	Transport
1A3b	Road Transportation	Transport
1A3c	Railways	Transport
1A3d	Navigation	Transport
1A3e	Other (please specify)	Transport
1A4	Other Sectors	Stationary combustion, Transport
1A4a	Commercial/Institutional	Stationary combustion
1A4b	Residential	Stationary combustion, Transport
1A4c	Agriculture/Forestry/Fishing	Stationary combustion, Transport
1A5	Other (please specify)	Stationary combustion, Transport
1A5a	Stationary	Stationary combustion
1A5b	Mobile	Transport
1B	Fugitive Emissions from Fuels	Fugitive
1B1	Solid Fuels	Fugitive
1B1a	Coal Mining	Fugitive
1B1a1	Underground Mines	Fugitive
1B1a2	Surface Mines	Fugitive
1B1b	Solid Fuel Transformation	Fugitive
1B1c	Other (please specify)	Fugitive
1B2	Oil and Natural Gas	Fugitive
1B2a	Oil	Fugitive
1B2a2	Production	Fugitive
1B2a3	Transport	Fugitive
1B2a4	Refining/Storage	Fugitive
1B2a5	Distribution of oil products	Fugitive
1B2a6	Other	Fugitive
1B2b	Natural Gas	Fugitive
1B2b1	Production/processing	Fugitive
1B2b2	Transmission/distribution	Fugitive
1B2c	Venting and Flaring	Fugitive
1B2c1	Venting and Flaring Oil	Fugitive
1B2c2	Venting and Flaring Gas	Fugitive
1B2d	Other	Fugitive

Summary tables for the emissions from the energy sector are shown below.

Table 2 SO₂, NO_x, NMVOC, CO and PM emission from the energy sector, 2002

	NO _x Gg NO ₂	CO Gg	NMVOC Gg	SO _x Gg SO ₂	TSP Mg	PM ₁₀ Mg	PM _{2.5} Mg
1A1 Energy Industries	53,07	12,54	4,30	10,87	1332	1074	903
1A2 Manufacturing industries and Construction	25,50	15,98	3,98	6,83	1964	1626	1296
1A3 Transport	79,45	305,43	46,59	2,39	6573	5720	5003
1A4 Other Sectors	38,69	219,32	22,53	4,78	5801	5493	5185
1A5 Other	0,42	0,32	0,06	0,00	20	20	20
1B1 Fugitive Emissions from fuels, Solid Fuels	-	21,26	-	-	939	376	38
1B2 Fugitive Emissions from fuels, Oil and Natural gas	2,79	1,79	6,52	0,40	3	3	3
Energy, Total	200	577	84	25	16633	14311	12447

Table 3 HM emissions from the energy sector, 2002

	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1A1 Energy Industries	2,33	0,23	0,66	0,41	0,51	0,65	4,53	0,73	13,64
1A2 Manufacturing industries and Construction	1,10	0,24	0,28	0,23	0,79	0,66	5,78	0,84	2,27
1A3 Transport	1,40	0,04	0,01	0,03	0,20	6,39	1,78	0,07	3,82
1A4 Other Sectors	0,25	0,15	0,23	0,09	0,14	0,90	1,28	0,23	3,15
1A5 Other	0,11	0,00	-	-	0,00	0,05	0,00	0,00	0,03
1B1 Fugitive Emissions from fuels, Solid Fuels	-	-	-	-	-	-	-	-	-
1B2 Fugitive Emissions from fuels, Oil and Natural gas	-	-	-	-	-	-	-	-	-
Energy, Total	5,2	0,66	1,2	0,77	1,6	8,6	13,4	1,9	23

Table 4 PAH and dioxin emission from the energy sector, 2002

	Dioxin g I-teq	benzo(a)- pyrene Mg	benzo(b)- fluoran- thene Mg	benzo(k)- fluoran- thene Mg	Indeno- (1,2,3-c,d)- pyrene Mg
1A1 Energy Industries	4,70	0,010	0,040	0,016	0,011
1A2 Manufacturing industries and Construction	1,93	0,028	0,101	0,026	0,010
1A3 Transport	1,51	0,046	0,064	0,070	0,055
1A4 Other Sectors	22,15	2,809	3,666	1,217	2,051
1A5 Other	-	0,000	0,000	0,000	0,000
1B1 Fugitive Emissions from fuels, Solid Fuels	-	-	-	-	-
1B2 Fugitive Emissions from fuels, Oil and Natural gas	-	-	-	-	-
Energy, Total	30	2,89	3,87	1,33	2,13

3.2 Stationary combustion (NFR sector 1A1, 1A2 and 1A4)

This chapter includes stationary combustion plants in NFR sector 1A1, 1A2 and 1A4. Further details about the inventories for stationary combustion is enclosed in Annex 3A.

3.2.1 Source category description

Emission source categories, fuel consumption data and emission data are presented in this chapter.

3.2.1.1 Emission source categories

In the Danish emission database all activity rates and emissions are defined in SNAP sector categories (Selected Nomenclature for Air Pollution). The data from the Danish database are aggregated to the NFR sector codes based on a correspondence list between SNAP and NFR sectors. The correspondence list is enclosed in Annex 3A. Stationary combustion is defined as combustion activities in the SNAP sectors 01-03.

Stationary combustion plants are included in the emission source subcategories:

- ◆ 1A1 Energy, Fuel consumption, Energy Industries
- ◆ 1A2 Energy, Fuel consumption, Manufacturing Industries and Construction
- ◆ 1A4 Energy, Fuel consumption, Other Sectors

The emission and fuel consumption data shown in tables and figures in Chapter 3.2 only includes emissions originating from stationary combustion plants of a given NFR sector. The NFR sector codes have been applied unchanged, but some source category names have been changed to reflect the stationary combustion part of the source.

3.2.1.2 Fuel consumption

In 2002 the total fuel consumption for stationary combustion plants was 568 PJ of which 490 PJ was fossil fuels.

Fuel consumption of the stationary combustion subsectors is shown in Figure 1 and Figure 2. The main part - 59% - of the fuels are combusted in the sector named *Electricity and heat production*. Other sectors with high fuel consumption are *Residential* and *Industry*.

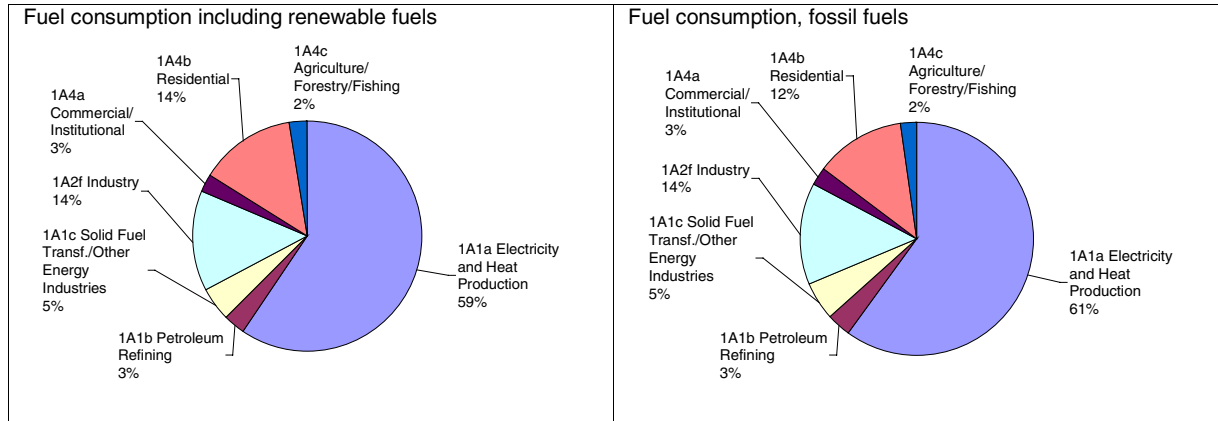


Figure 1 Fuel consumption rate of stationary combustion, 2002 (based on DEA 2003a)

Coal and natural gas are the most utilised fuels for stationary combustion plants. Coal is mainly used in power plants whereas natural gas is used in both power plants and decentralised CHP plants as well as in industry, district heating and households.

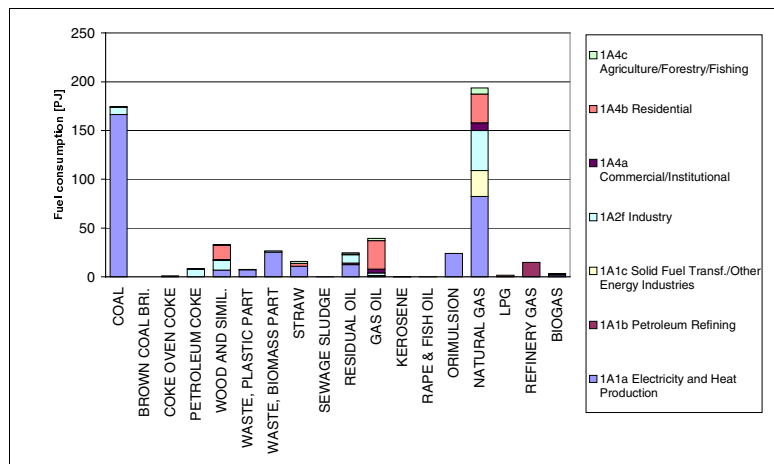


Figure 2 Fuel consumption of stationary combustion plants 2002 (based on DEA 2003a)

Fuel consumption time-series for stationary combustion plants are shown in Figure 3. The total fuel consumption has increased by 14% from 1990 to 2002, while the fossil fuel consumption has only increased by 8%. The consumption of natural gas and renewable fuels has increased since 1990 whereas coal consumption has decreased (cf. Figure 3).

The fuel consumption rate fluctuates considerably mainly due to electricity import/export, but also due to outdoor variations in temperature.

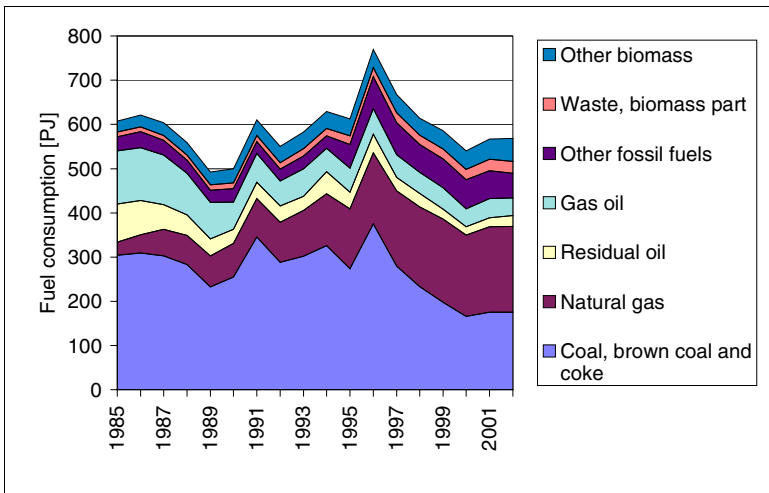
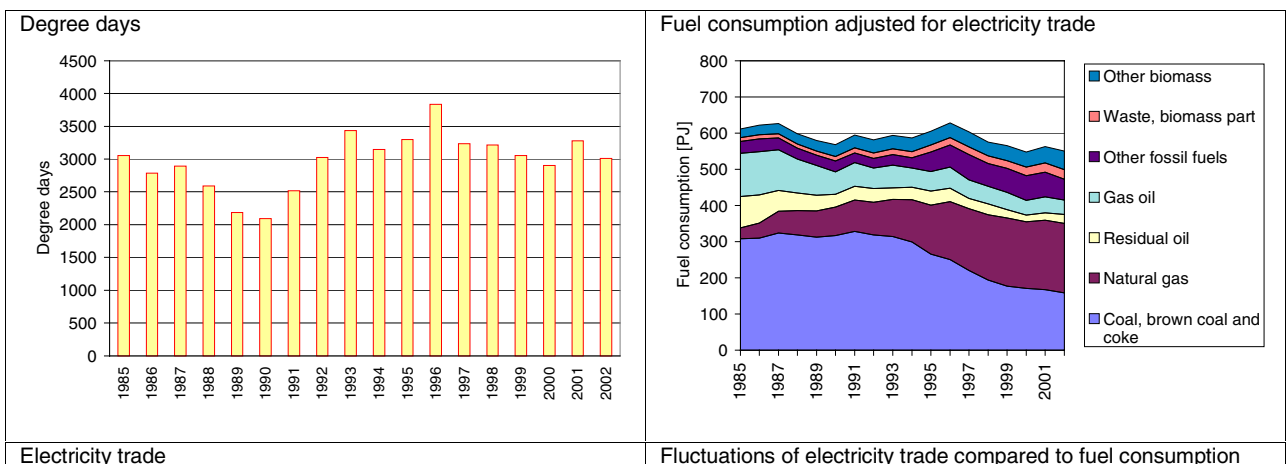


Figure 3 Fuel consumption time-series, stationary combustion (based on DEA 2003a)

The fluctuations in the time-series for fuel consumption are mainly a result of electricity import and export but also a result of yearly variations in outdoor temperature between years. This also leads to fluctuations of the emission levels. The fluctuations of electricity trade, fuel consumption and NO_x emission are shown and compared in Figure 4. In 1990 the Danish electricity import was large causing relatively low fuel consumption, whereas the fuel consumption was high in 1996 due to a large electricity export. In 2002 the net export of electricity was 7453 TJ.

To be able to follow the national energy consumption and for statistical and reporting purposes the Danish Energy Authority produces a correction of the actual fuel consumption without random variations in electricity imports/exports and in ambient temperature. This fuel consumption trend is also shown in Figure 4. The corrections are included here to explain the fluctuations in the emission time-series.



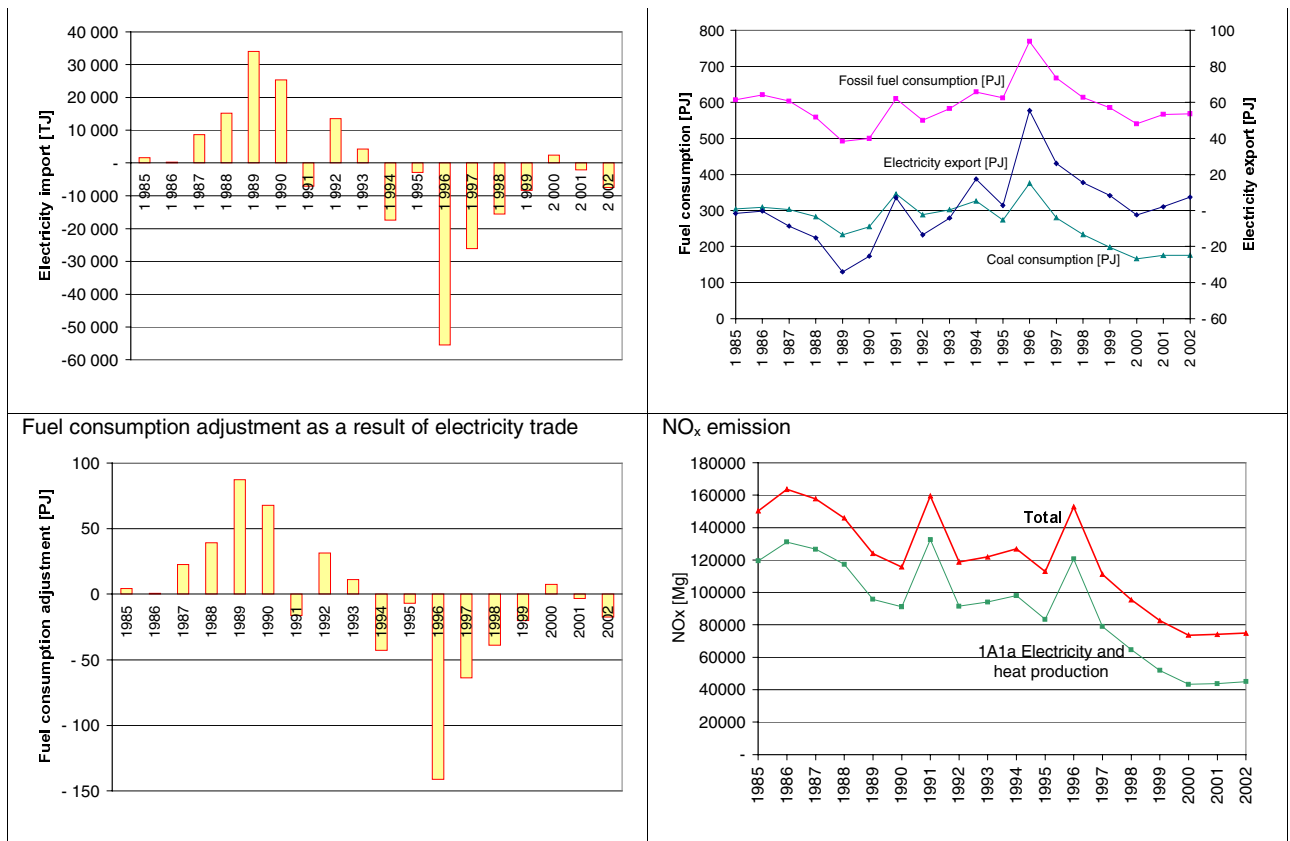


Figure 4 Comparison of time-series fluctuations for electricity trade, fuel consumption and NO_x emission (DEA 2003b)

3.2.1.3 Emissions

SO₂

Stationary combustion is the most important emission source for SO₂, accounting for 85% of the total Danish emission. Table 5 shows the SO₂ emission inventory for stationary combustion plants.

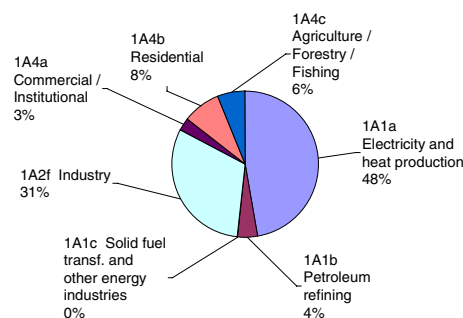
Electricity and heat production is the largest emission source accounting for 48% of the emission. The SO₂ emission share is smaller compared to the fuel consumption share of this sector, which is 59% as shown in Figure 3, page 26. This is possible due to the effective flue gas desulphurization plants installed in power plants combusting coal. The main part (73%) of the emission in the subsector originates from power plants >300MW_{th}.

The SO₂ emission from *Industry* is 31%, which is a remarkably large emission compared with the fuel consumption share. The main emission sources in the industry sector are combustion of coal and residual oil, but also emissions from cement industry and from industrial combustion of petroleum coke are considerable sources.

Time-series for SO₂ emission from stationary combustion are shown in Figure 5. The emission has decreased by 95% from 1980 and 83% from 1995. The large decrease in emission is mainly a result of the reduced emission from *Electricity and heat production* that have been possible due to installation of desulphurization plants and due to the use of fuels with a lower content of sulphur.

Table 5 SO₂ emission from stationary combustion plants 2002¹⁾

SO ₂	2002
1A1a Electricity and heat production	9936 Mg
1A1b Petroleum refining	927 Mg
1A1c Solid fuel transf. and other energy industries	9 Mg
1A2f Industry	6563 Mg
1A4a Commercial / Institutional	553 Mg
1A4b Residential	1787 Mg
1A4c Agriculture / Forestry / Fishing	1284 Mg
Total	21058 Mg



1) Only emission from stationary combustion plants in the sectors is included

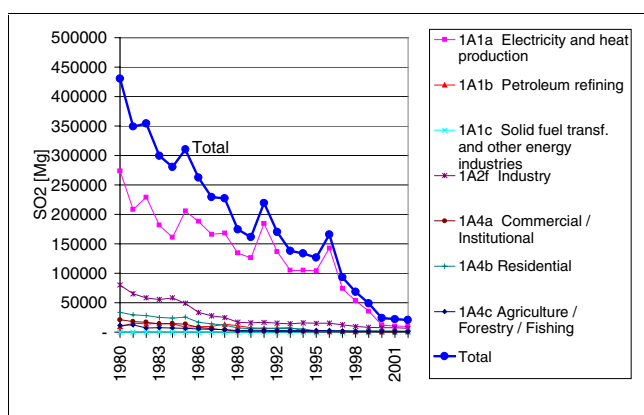


Figure 5 SO₂ emission time-series for stationary combustion

NO_x

Stationary combustion accounts for 37% of the total Danish NO_x emission. Table 6 shows the NO_x emission inventory for stationary combustion subsectors.

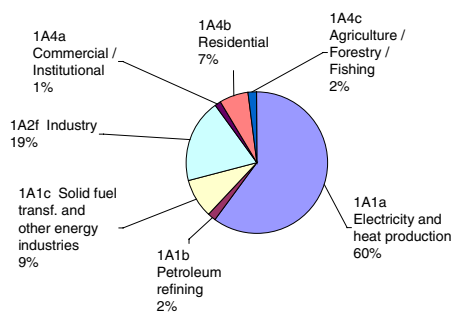
Electricity and heat production is the largest emission source accounting for 60% of the emission from stationary combustion plants. Power plants >50MW_{th} are the main emission source in this sector accounting for 68%.

Industrial combustion plants are also an important emission source accounting for 19% of the emission. The main industrial emission source is cement production that accounts for 62% of the emission.

Time-series for NO_x emission from stationary combustion are shown in Figure 6. The emission has decreased by 50% from 1985 to 2002 and 34% from 1995 to 2002. The reduced emission is mainly a result of the reduced emission from *Electricity and heat production* due to installation of low NO_x burners and selective catalytic reduction (SCR) units. The fluctuations of the time-series follow the electricity trade fluctuations. The NO_x emission from all subsectors has decreased since 1985.

Table 6 NO_x emission from stationary combustion plants 2002 ¹⁾

	2002
1A1a Electricity and heat production	44964 Mg
1A1b Petroleum refining	1554 Mg
1A1c Solid fuel transf. and other energy industries	6555 Mg
1A2f Industry	14412 Mg
1A4a Commercial / Institutional	1077 Mg
1A4b Residential	4909 Mg
1A4c Agriculture / Forestry / Fishing	1460 Mg
Total	74931 Mg



1) Only emission from stationary combustion plants in the sectors is included

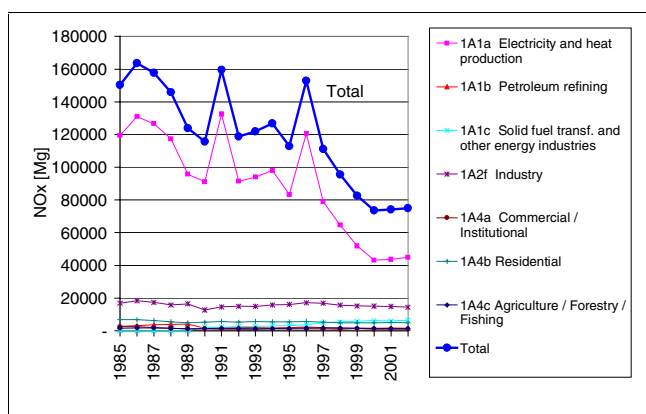


Figure 6 NO_x emission time-series for stationary combustion

NMVOG

Stationary combustion plants account for 15% of the total Danish NMVOC emission. Table 7 shows the NMVOC emission inventory for the stationary combustion subsectors.

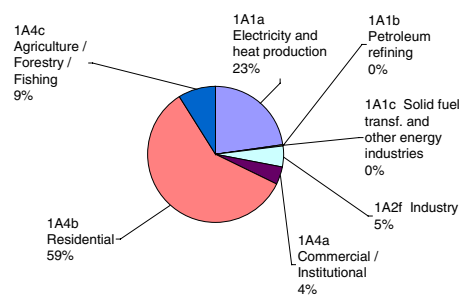
Residential plants are the largest emission source accounting for 59% of the total emission from stationary combustion plants. The NMVOC emission from residential plants is mainly emitted from wood and straw combustion, see Figure 7.

Electricity and heat production is also a considerable emission source (23%). Lean-burn gas engines have a relatively high NMVOC emission factor and are the most important emission source in this subsector. The gas engines are either natural gas or biogas fuelled.

Time-series for NMVOC emission from stationary combustion are shown in Figure 8. The emission has increased by 40% from 1985 to 2002 and 14% from 1995 to 2002. This is mainly a result of the increased use of lean-burn gas engines in CHP plants. The emission from residential plants is relatively constant, but the NMVOC emission from wood combustion almost doubled since 1990 due to increased wood consumption. Opposite the emission from straw combustion in farmhouse boilers have decreased at the same time.

Table 7 NMVOC emission from stationary combustion plants 2002 ¹⁾

	2002
1A1a Electricity and heat production	4240 Mg
1A1b Petroleum refining	4 Mg
1A1c Solid fuel transf. and other energy industries	55 Mg
1A2f Industry	926 Mg
1A4a Commercial / Institutional	748 Mg
1A4b Residential	10964 Mg
1A4c Agriculture / Forestry / Fishing	1657 Mg
Total	18594 Mg



1) Only emission from stationary combustion plants in the sectors is included

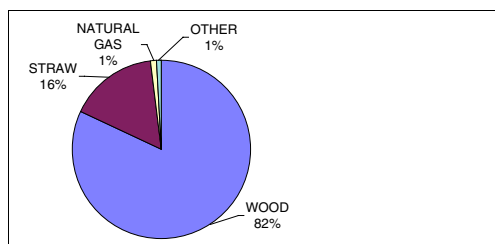


Figure 7 NMVOC emission from residential plants, 2002

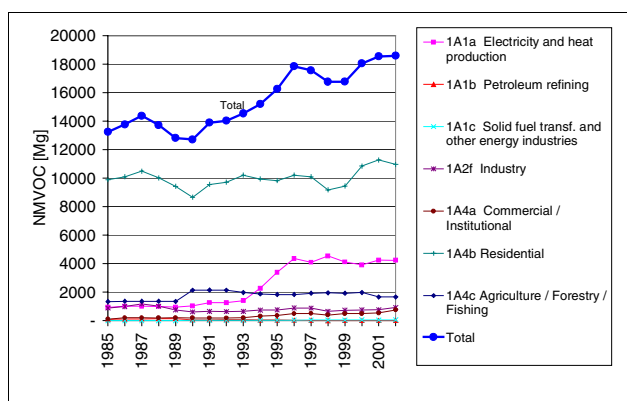


Figure 8 NMVOC emission time-series for stationary combustion

CO

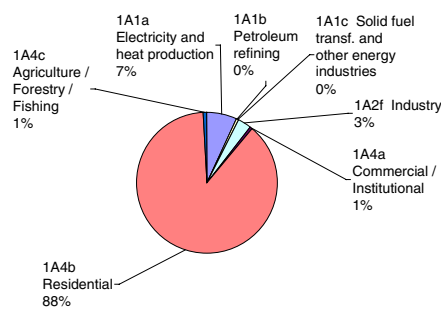
Stationary combustion accounts for 29% of the total Danish CO emission. Table 8 shows the CO emission inventory for stationary combustion subsectors.

Residential plants are the largest emission source accounting for 88% of the emission. Wood combustion accounts for 90% of the emission from residential plants, see Figure 9. This in spite of the fact that the fuel consumption share is only 19%. Combustion of straw is also a considerable emission source, whereas the emission from other fuels used in residential plants is almost negligible.

Time-series for CO emission from stationary combustion is shown in Figure 10. The emission has increased by 40% from 1985 to 2002 and 6% from 1995 to 2002. The time-series for stationary combustion plants follow the time-series for residential plants. The wood consumption in residential plants increased 65% since 1990 causing an increase of the CO emission. In the same period of time the CO emission from farmhouse boilers combusting straw has decreased considerably. Both the annual straw consumption in residential plants and the CO emission factor for farmhouse boilers have decreased.

Table 8 CO emission from stationary combustion plants 2002 ¹⁾

	2002
1A1a Electricity and heat production	11528 Mg
1A1b Petroleum refining	263 Mg
1A1c Solid fuel transf. and other energy industries	749 Mg
1A2f Industry	5203 Mg
1A4a Commercial / Institutional	909 Mg
1A4b Residential	147045 Mg
1A4c Agriculture / Forestry / Fishing	1480 Mg
Total	167176 Mg



1) Only emission from stationary combustion plants in the sectors is included

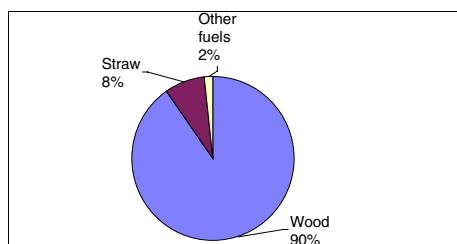


Figure 9 CO emission sources, residential plants, 2002

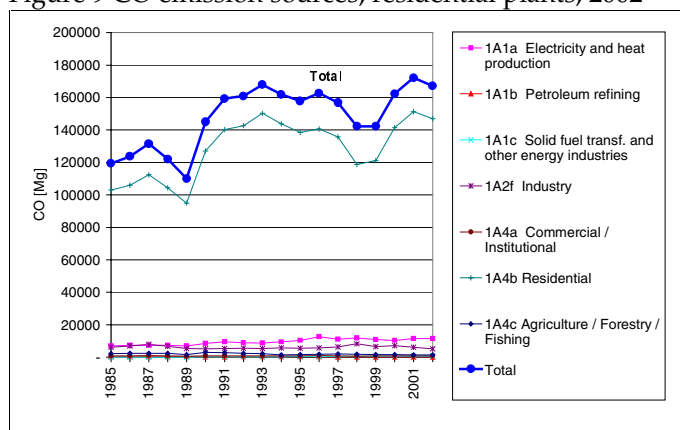


Figure 10 CO emission time-series for stationary combustion

PM

So far only PM emissions from stationary combustion, transport, agriculture and part of the industry have been included in the Danish inventory. TSP from stationary combustion accounts for 16% of the total Danish emission. The emission shares for PM_{10} and $PM_{2.5}$ are 22% and 30%, respectively.

Table 9 shows the PM emissions for stationary combustion subsectors. Residential plants are the largest emission source accounting for 65% of the $PM_{2.5}$ emission from stationary combustion plants.

The primary sources of PM emission are:

- ◆ Residential boilers, stoves and fireplaces combusting wood
- ◆ Farmhouse boilers combusting straw
- ◆ Power plants primarily combusting coal
- ◆ Coal and residual oil combusted in industrial boilers and processes

The PM emission from wood combusted in residential plants is the predominant source. Thus 47% of the $PM_{2.5}$ emission from stationary combustion is emitted from residential wood combustion. Wood combustion accounts for almost 72% of the $PM_{2.5}$ emission from residential plants in spite of the limited wood consumption share.

Emission inventories for PM have only been reported for the years 2000-2002 and the emission level has not changed considerably in this period.

Table 9 PM emission from stationary combustion plants, 2002

	TSP	PM ₁₀	PM _{2.5}	
1A1a Electricity and heat production	1187	943	778	Mg
1A1b Petroleum refining	142	128	122	Mg
1A1c Solid fuel transf. and other energy industries	3	3	3	Mg
1A2f Industry	655	519	333	Mg
1A4a Commercial / Institutional	204	195	181	Mg
1A4b Residential	3096	2936	2770	Mg
1A4c Agriculture / Forestry / Fishing	115	92	75	Mg
Total	5402	4816	4261	Mg

1) Only emission from stationary combustion plants in the sectors is included

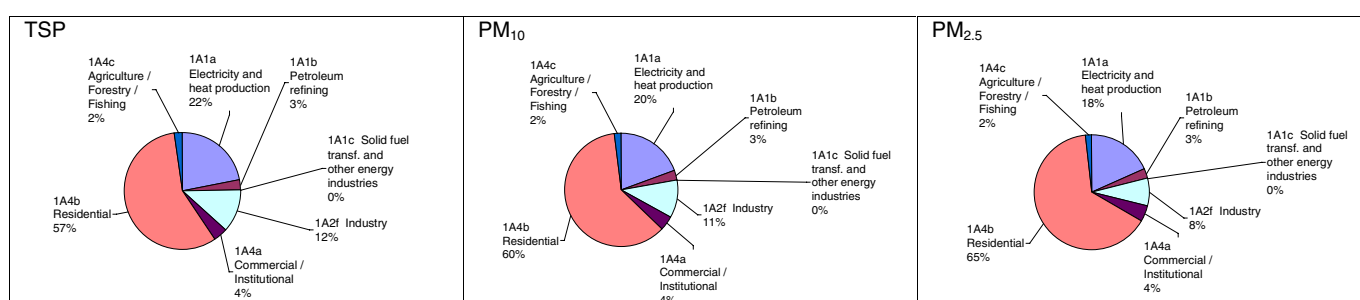


Figure 11 PM emission sources, stationary combustion plants, 2002

Heavy metals

Emission inventories for 9 heavy metals are reported to the LRTAP Convention. Three of the metals are considered priority metals: Pb, Cd and Hg. The 2002 emissions are shown in Table 10.

Stationary combustion plants are the most important emission source for heavy metals. For Cu, the emission share from stationary combustion plants is 12%, but for all other heavy metals the emission share is more than 50%.

The sectors *Electricity and heat production* and *Industry* have the highest emission shares. *Electricity and heat production* accounts for 80%, 37% and 56% of the emission of the priority metals Pb, Cd and Hg, respectively.

Table 10 Heavy metal emission from stationary combustion plants, 2002¹⁾

	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	
1A1a Electricity and heat production	395	211	466	628	658	3651	2299	714	13632	kg
1A1b Petroleum refining	19	18	45	18	6	875	32	17	4	kg
1A1c Solid fuel transf. and other energy industries	0	0	0	0	0	0	0	0	0	kg
1A2f Industry	187	199	314	219	276	5363	287	135	1601	kg
1A4a Commercial / Institutional	20	14	20	20	43	233	46	23	185	kg
1A4b Residential	38	111	35	141	156	118	134	138	2377	kg
1A4c Agriculture / Forestry / Fishing	25	22	51	27	25	888	50	29	81	kg
Total	684	576	932	1052	1163	11129	2848	1055	17880	kg

1) Only emission from stationary combustion plants in the sectors is included

Time-series for heavy metal emissions are shown in Figure 12. The heavy metal emissions have decreased considerably since 1990. Table 11 shows the decrease of each heavy metal

since 1990. The emissions have decreased despite of the increased incineration of municipal waste. This has been possible due to the installation and improved performance of gas cleaning devices at waste incineration plants and at the large power plants.

Table 11 Decrease of heavy metal emission 1990-2002

Pollutant	Decrease since 1990
As	51%
Cd	45%
Cr	84%
Cu	71%
Hg	64%
Ni	47%
Pb	80%
Se	70%
Zn	8%

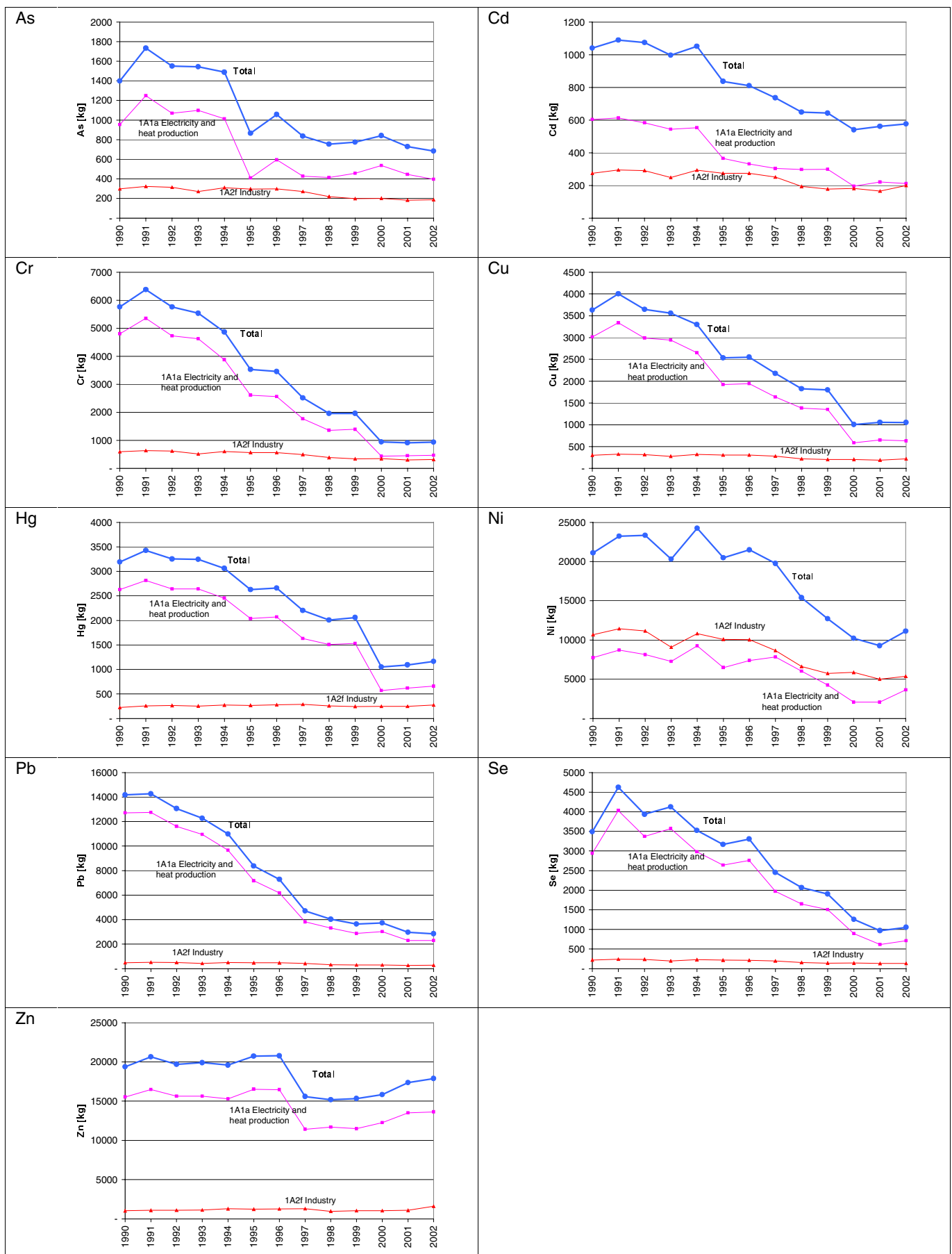


Figure 12 Heavy metal emission time-series, stationary combustion plants

PAH

Emission inventories for 4 PAH's and for dioxin are reported to the LRTAP Convention. Dioxin emission inventories are estimated by COWI for the Danish Environmental Protection Agency (Hansen & Hansen 2003). Stationary combustion plants account for more than 90% of the PAH emissions and 29% of the dioxin emission.¹

Table 12 shows the PAH emission inventory for the stationary combustion subsectors. Residential combustion is the largest emission source. Combustion of wood is the predominant source accounting for more than 90% of the emission in residential plants.

The increasing emission trend is a result of the increased combustion of wood in residential plants. The time-series for wood combustion in residential plants is also shown in Figure 13.

Table 12 PAH emission from stationary combustion plants, 2002

	Benzo(a)-pyrene Mg	Benzo(b)-fluoranthene Mg	Benzo(k)-fluoranthene Mg	Indeno(1,2,3-c,d) pyrene Mg
1A1a Electricity and heat production	10	40	16	11
1A1b Petroleum refining	0	1	0	0
1A1c Solid fuel transf. and other energy industries	0	0	0	0
1A2f Industry	26	97	22	8
1A4a Commercial / Institutional	164	216	72	117
1A4b Residential	2534	3319	1107	1789
1A4c Agriculture / Forestry / Fishing	105	117	28	131
Total	2840	3790	1244	2056

1) Only emission from stationary combustion plants in the sectors is included

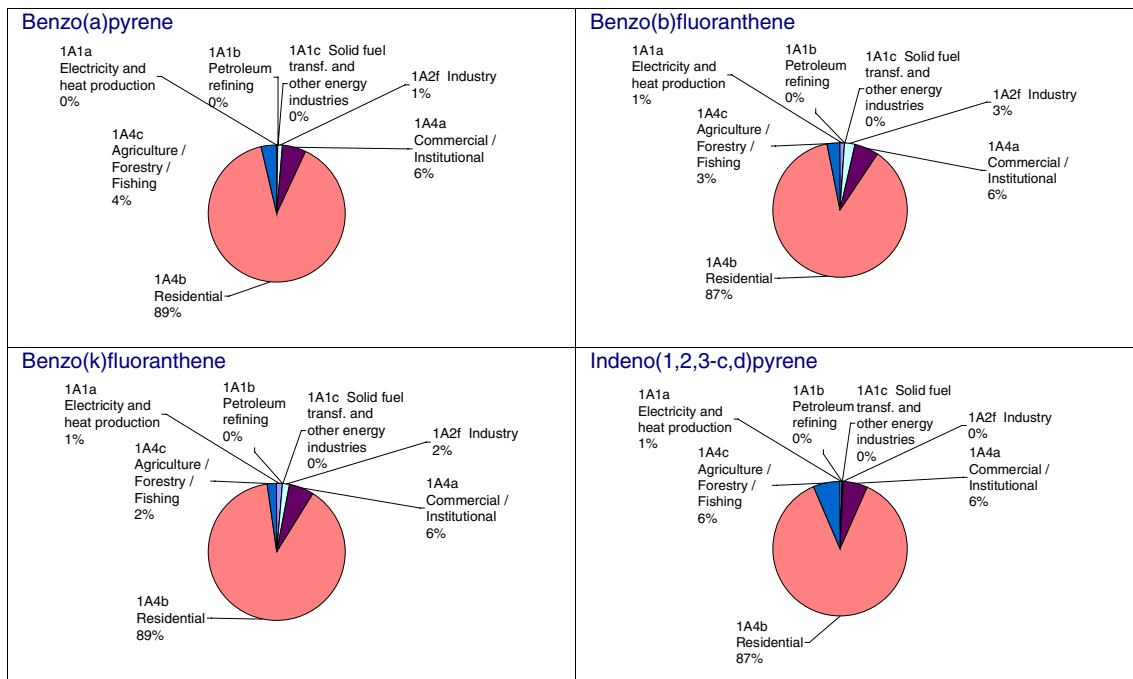


Figure 13 PAH emission sources, stationary combustion plants, 2002

¹ Dioxin emission reported in source category 6C Waste Incineration have been included in 1A1 Fuel combustion

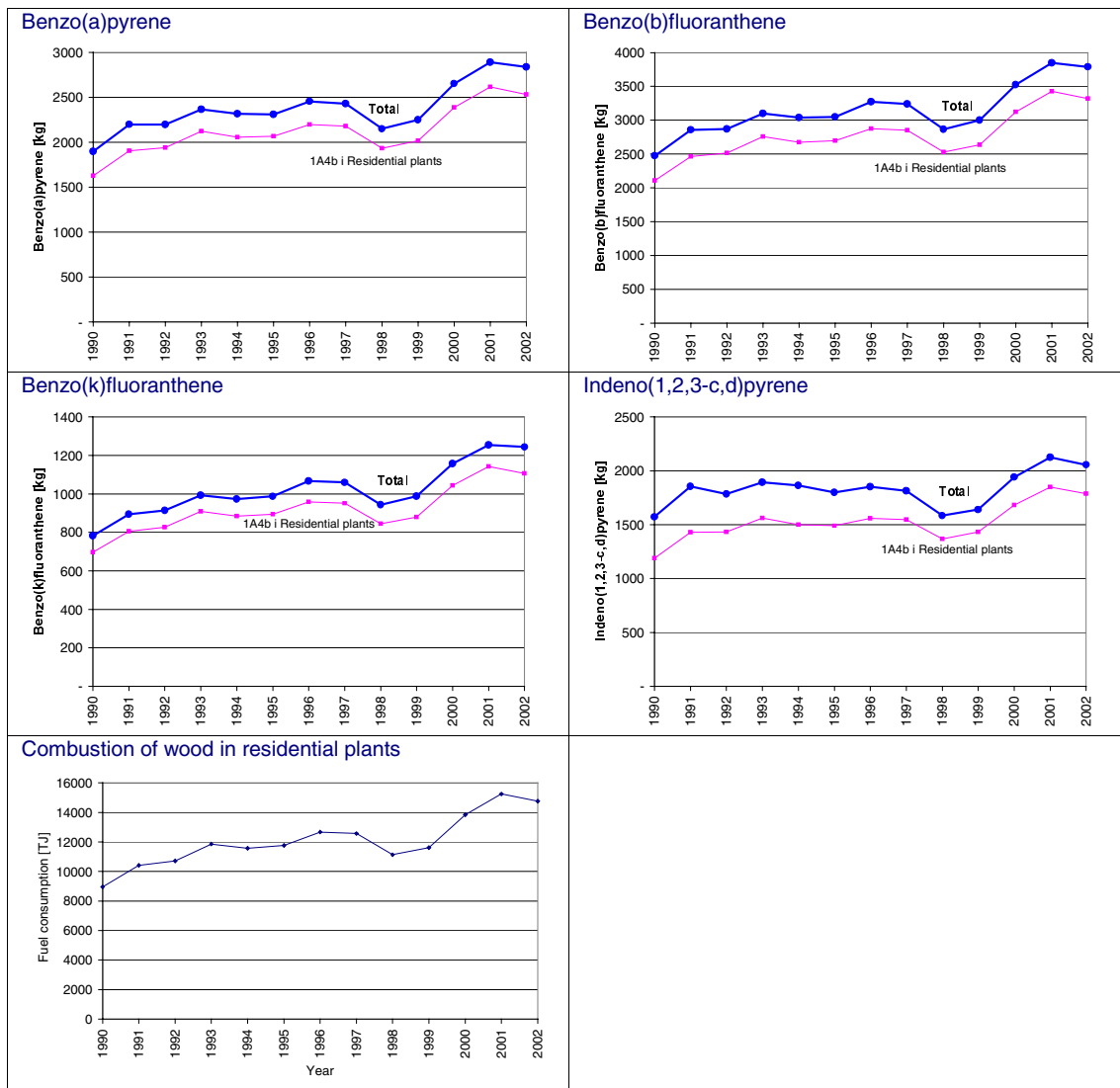


Figure 14 PAH emission time-series, stationary combustion plants. Comparison with wood consumption in residential plants.

3.2.2 Methodological issues

The Danish emission inventory is based on the CORINAIR (CORe INventory on AIR emissions) system, which is a European program for air emission inventories. CORINAIR includes methodology structure and software for inventories. The methodology is described in the EMEP/Corinair Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP Task Force on Emissions Inventories and Projections (EMEP/Corinair 2003). Emission data are stored in an Access database, from which data are transferred to the reporting format.

The emission inventory for stationary combustion is based on activity rates from the Danish energy statistics. General emission factors for different fuels, plants and sectors have been determined. Some large plants, like e.g. power plants, are registered individually as large point sources and plant specific emission data are used.

3.2.2.1 Large point sources

Large emission sources like power plants, industrial plants and refineries are included as large point sources in the Danish emission database. Each point source might consist of more than one part, e.g. a power plant with several units. By registering the plants as point sources in the database it is possible to use plant specific emission factors.

In the inventory for the year 2002, 63 stationary combustion plants are specified as large point sources in the Danish emission database. These point sources include:

- ◆ Power plants and decentralised CHP plants (combined heat and power plants)
- ◆ Municipal waste incineration plants
- ◆ A few large industrial combustion plants
- ◆ Petroleum refining plants

The fuel consumption of stationary combustion plants registered as large point sources is 326 PJ (2002). This corresponds to 57% of the overall fuel consumption of stationary combustion.

Further details about the large point sources are shown in annex 3A. The number of large point sources registered in the databases increased from 1990 to 2002. No point sources are defined in the inventories for 1980-1989.

If plant specific emission factors are not available, the general area source emission factor is used. Plant specific emission data are obtained from:

- ◆ Annual environmental reports
- ◆ Annual plant specific reporting of SO₂ and NO_x from power plants >25MW_e prepared for the Danish Energy Authority due to Danish legislation
- ◆ Emission data reported by Elsam and E2, the two major electricity suppliers
- ◆ Emission data reported from industrial plants

Annual environmental reports from the plants include a considerable number of emission data sets. Emission data from annual environmental reports are in general based on emission measurements, but some emissions might have been calculated from general emission factors.

3.2.2.2 Area sources

Fuels not combusted in large point sources are included as sector specific area sources in the emission database. Plants like residential boilers, small district heating plants, small CHP plants and some industrial boilers are defined as area sources. Emissions from area sources

are based on fuel consumption data and emission factors. Further information about emission factors is given below.

3.2.2.3 Activity rates, fuel consumption

The fuel consumption rates are based on the official Danish energy statistics prepared by the Danish Energy Authority. The Danish Energy Authority aggregates fuel consumption rates to SNAP sector categories (DEA 2003a). Some fuel types in the official Danish energy statistics are added to obtain a less detailed fuel aggregation level (cf. Annex 3A. The calorific values on which the energy statistics are based, are also enclosed in the Annex 3A.

The fuel consumption of the NFR sector *1A2 Manufacturing industries and construction* (corresponding to SNAP sector *03 Combustion in manufacturing industries*) have not yet been disaggregated to specific industries. In the reporting tables the emissions are included in the general industrial combustion sector *1A2 Industry*. However NERI and the Danish Energy Authority have initiated work, which will ensure that fuel consumption rates of each industrial subsector can be reported next year.

Both traded and not traded fuels are included in the Danish energy statistics. Thus e.g. an estimation of the annual consumption of non-traded wood is included.

Petroleum coke imported and combusted in Danish residential plants (border trade of 251 TJ) are added to the apparent consumption of petroleum coke and the emissions are included in the inventory.

The Danish Energy Authority compile a database for the fuel consumption of each district heating or power producing plant based on data reported by the plant owners. The fuel consumption of large point sources specified in the Danish emission databases refers to this annually updated database (DEA 2003c).

The fuel consumption of area sources is calculated as total fuel consumption minus fuel consumption of large point sources.

Emissions from non-energy use of fuels are not included in the Danish inventory. The Danish energy statistics include three fuels used for non-energy purposes: Bitumen, white spirit and lube oil.

In Denmark all municipal waste incineration is utilised for heat and power production. Thus incineration of waste is included as stationary combustion in the NFR Energy sector (source categories *1A1*, *1A2* and *1A4*).

Fuel consumption data are presented in chapter 3.2.1.2.

3.2.2.4 Emission factors

For each fuel and SNAP (sector and e.g. type of plant) a set of general area source emission factors has been determined. The emission factors are either national referenced or based on the international guidebooks: EMEP/Corinair Guidebook (EMEP/Corinair 2003) and IPCC Reference Manual (IPCC 1996).

A complete list of emission factors for 2002, time-series for emission factors and detailed references are enclosed in annex 3A. The area source emission factors for 2002 for SO₂, NO_x, NMVOC and CO are shown in Table 13.

Table 13 SO₂, NO_x, NMVOC and CO emission factors 2002

Fuel	NFR sector	SNAP	SO ₂ [g/GJ]	NO _x [g/GJ]	NMVOC [g/GJ]	CO [g/GJ]
COAL	1A1a	010101, 010102, 010103	45	130	1,5	10
COAL	1A1a, 1A2f, 1A4b, 1A4c	010202, 010203, 0301, 0202, 0203	574	95	15	10
BROWN COAL BRI.	1A4b	0202	574	95	15	10
COKE OVEN COKE	1A2f, 1A4b	0301, 0202	574	95	15	10
PETROLEUM COKE	1A2f	0301	573	50	1,5	61
PETROLEUM COKE	1A4a, 1A4b, 1A4c	0201, 0202, 0203	573	50	1,5	1000
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	1,74	69	3,3	79
WOOD AND SIMIL.	1A1a	010105	25	130	48	50
WOOD AND SIMIL.	1A1a, 1A2f	010202, 010203, 010205, 0301, 030102, 030103	25	130	48	240
WOOD AND SIMIL.	1A4a, 1A4c	0201, 020105, 0203	25	130	600	240
WOOD AND SIMIL.	1A4b	0202	25	120	600	9000
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	23,9	124	0,98	7,4
MUNICIP. WASTES	1A1a, 1A2f, 1A4a	010203, 030102, 0201, 020103	67	164	9	10
STRAW	1A1a	010102, 010103	47,1	131	0,8	63
STRAW	1A1a, 1A2f	010202, 010203, 030102, 030105	130	153	50	325
STRAW	1A4a, 1A4c	0201, 0203, 020302	130	153	600	325
STRAW	1A4b	0202	130	153	600	4000
RESIDUAL OIL	1A1a	0101, 010101, 010102, 010103, 010104	290	130	3	15
RESIDUAL OIL	1A1a, 1A4b, 1A4c	010202, 010203, 0201, 0202, 0203, 020302	344	142	3	30
RESIDUAL OIL	1A1b	010303	649	142	3	30
RESIDUAL OIL	1A2f	0301, 030102, 030103	344	130	3	30
RESIDUAL OIL	1A2f	030104	344	130	3	15
RESIDUAL OIL	1A2f	030105	344	130	3	100
RESIDUAL OIL	1A4a, 1A4c	020105, 020304	344	142	3	100
GAS OIL	1A1a	0101, 010101, 010102, 010103	23	220	1,5	15
GAS OIL	1A1a, 1A2f	Gas turbines: 010104, 030104	23	350	2	15
GAS OIL	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Engines: 010105, 010205, 010505, 030105, 020105, 020304	23	700	100	100
GAS OIL	1A1a, 1A2f	010202, 0301, 030102	23	65	1,5	30
GAS OIL	1A1a, 1A2f	010203, 030103, 030106	23	52	1,5	30
GAS OIL	1A4a, 1A4c	0201, 020103, 0203	23	52	3	30
GAS OIL	1A4b	0202	23	52	3	43
KEROSENE	all	all	5	50	3	20
FISH & RAPE OIL	1A1a	010203	100	153	50	325
FISH & RAPE OIL	1A2f	030105	130	153	50	325
FISH & RAPE OIL	1A4c	020304	100	153	600	325
ORIMULSION	1A1a	010101	12	86	3	15
NATURAL GAS	1A1a	0101, 010101, 010102, 010103	0,3	115	2	15
NATURAL GAS	1A1a, 1A1b, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010304, 010504, 030104, 020104, 020303	0,3	124	1,4	6,2
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020204, 020304	0,3	168	117	175
NATURAL GAS	1A1a, 1A2f	010202, 010203, 0301, 030103, 030106	0,3	50	2	28
NATURAL GAS	1A1c	010502	0,3	250	2	28
NATURAL GAS	1A4a, 1A4c	0201, 020103, 0203	0,3	30	2	28
NATURAL GAS	1A4b	0202, 020202	0,3	30	4	20
LPG	1A1a, 1A2f	010203, 0301, 030106	0,13	96	2	25
LPG	1A4a, 1A4c	0201, 0203	0,13	71	2	25
LPG	1A4b	0202	0,13	47	2	25
REFINERY GAS	1A1b	010303	0,3	100	4	15
REFINERY GAS	1A1b	010304	0,3	170	4	15
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	010102, 010103, 010203, 0301, 0201, 020103, 0203	11	31	4	36
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020304	19,2	540	14	273
BIOGAS	1A2f	030102	11	66	4	36

Most country specific emission factors refer to:

- ◆ Danish legislation
- ◆ A emission measurement program for decentralised CHP plants
- ◆ Other Danish research reports

- ◆ Calculations based on plant specific emissions from a considerable number of power plants
- ◆ Calculations based on plant specific emissions from a considerable number of municipal waste incineration plants

SO₂ and NO_x emissions from large point sources are often plant specific i.e. based on emission measurements. Emissions of CO, NMVOC, PM and heavy metals are also plant specific in some cases.

Some of the area source emission factors for power plants and municipal waste CHP plants take into account, that the large plants are included in the inventory as large point sources with plant specific emission data. Thus some area source emission factors are default values assuming that the remaining fuel consumption is combusted in smaller units with less effective flue gas cleaning. The area source emission factors are therefore not necessarily average values for these plant categories.

3.2.3 Uncertainties and time-series consistency

Time-series for fuel consumption and emission are shown and discussed in chapter 3.2.1.2 and 3.2.1.3.

3.2.3.1 Methodology

The IPCC methodologies for uncertainty estimates have been adopted for the LRTAP Convention reportings (Pulles & Aardenne 2002). The Danish uncertainty estimates are based on the simple tier 1 approach.

The uncertainty estimates are based on emission data for the base year and year 2002 and on uncertainties for fuel consumption and emission factors for each of the main SNAP sectors. For particulate matter year 2000 is considered base year, but for all other pollutants the base year is 1990. The applied uncertainties for activity rates and emission factors are default values referring to Pulles & Aardenne 2002. The uncertainty for PM is however assumed values estimated by NERI. The default uncertainties for emission factors are given in letter codes representing an uncertainty range. It has been assumed that the uncertainties are in the lower end of the range for all sources and pollutants. The applied uncertainties for emission factors are shown in Table 14. The uncertainty for fuel consumption in stationary combustion plants was assumed to be 2%.

Table 14 Uncertainty rates for emission factors

SNAP sector	SO ₂	NO _x	NMVOC	CO	PM	HM	PAH
01	10	20	50	20	50	100	100
02	20	50	50	50	500	1000	1000
03	10	20	50	20	50	100	100

3.2.3.2 Results

Uncertainty estimates include uncertainty of the total emission as well as uncertainty of the trend. The estimated uncertainties for stationary combustion emission inventories are shown in Table 15. Detailed calculation sheets are shown in annex 3A.

The total emission uncertainty is 7% for SO₂, 16% for NO_x, 38% for NMVOC and 45% for CO. For all other pollutants the uncertainty is more than 100%.

Table 15 Danish uncertainty estimates, 2002

Pollutant	Uncertainty Total emission [%]	Trend 1990 ¹)-2002 [%]	Uncertainty Trend [%-age points]
SO ₂	7	-87	±0,6
NO _x	16	-35	±2,5
NMVOOC	38	46	±15
CO	45	15	±3
TSP ¹⁾	295	1,5	±3,3
PM ₁₀ ¹⁾	320	1,0	±2,7
PM _{2,5} ¹⁾	345	1,5	±4,1
As	130	-50	±14
Cd	246	-43	±61
Cr	101	-78	±14
Cu	175	-69	±27
Hg	200	-63	±34
Ni	125	-46	±12
Pb	94	-77	±5
Se	125	-59	±21
Zn	163	-9	±6
Benzo(b)fluoranthene	972	52	±9
Benzo(k)fluoranthene	970	59	±22
Benzo(a)pyrene	987	50	±5
Indeno(1,2,3-c,d)	991	31	±6

1. The base year for PM is year 2000

3.2.4 Source specific QA/QC and verification

A formal QA/QC plan has not yet been developed, but a number of quality control (QC) procedures are at this stage already implemented and performed. The QC procedures for stationary combustion includes:

- Check of time-series for each NFR and SNAP source categories. Considerable changes are controlled and explained.
- Comparison to inventory of the previous year. Any major changes are verified
- Total emission when aggregated to NFR are compared to totals based on SNAP source categories (control of data transfer)
- A manual log table in the emission databases is applied to collect information about recalculations
- The reference approach included in the greenhouse gas emission reportings to UNFCCC validates the fuel consumption rates. Fuel consumption rates are within 2,0% difference (1990-2002).
- The emission from each large point source is compared to the emission reported the previous year.
- Some automated checks have been prepared for the emission databases:
 - Check of units for fuel rates, emission factors and plant specific emissions
 - Check of emission factors of large point sources. Emission factors of pollutants that are not plant specific should be the same as the emission factor that are defined for area sources.
 - Additional checks of database consistency
- Most emission factor references are now implemented in the emission database itself.
- Annual environmental reports are kept for subsequent control of plant specific emission data
- QA/QC checks of the country specific emission factors have not been performed but most factors are based on work from companies that have implemented some QA/QC work. The two major power plant owners / operators in Denmark: E2 and Elsam both obtained the ISO 14001 certification for environmental management system. Danish Gas Technology Centre and dk-Teknik both run accredited laboratories for emission measurements.

3.2.5 Source specific recalculations

Recalculations since the 2003 emission inventory reportings include:

- ◆ Fuel consumption rates for a few stationary combustion sectors have been recalculated as a result of a new estimate for off-road machinery, see chapter 3.3.
- ◆ Emission factors for combined heat and power plants have been improved based on a Danish project including collection of existing emission data and performance of a large number of new emission measurements (Nielsen & Illerup 2003). The emission measurements includes both: SO₂, NO_x, NMVOC, CO, PM, HM and PAH.
- ◆ Centralised power plants have been included in the emission databases as point sources in 1991-1994 (was already included as point sources all other years). Plant specific SO₂ and NO_x emission factors are applied. However, the area source emission factor applied in former inventories took into account the plant specific data and thus the estimated emissions are not changed considerably due to this improvement.
- ◆ The SO₂ and NO_x emission factors have been examined and time-series inconsistencies have been corrected.
- ◆ HM emission factors for power plants have been changed for the years 1991-1993 due to inconsistencies with emission factors applied for 1990 and 1994.
- ◆ Fuel consumption rate for residential wood combustion has been updated according to the new energy statistics.
- ◆ PM emissions from refineries 2001 have been added

Further a few minor errors for large point sources have been corrected.

3.2.6 Source specific planned improvements

The planned improvements of the inventory includes:

1) Disaggregation of fuel consumption in the industrial sector

So far the Danish energy statistics aggregated to SNAP sectors have not specified fuel consumption rates for specific industries. The disaggregation is expected to be implemented in the reportings in 2005.

2) Energy statistics update

A full update of fuel consumption according to the updated energy statistics has not been carried out for a few years. A full update is expected to be part of the next emission inventory.

3) Improved documentation for emission factors

The documentation of the applied emission factors has been improved this year and will be further developed in future inventories.

4) Improved QA/QC and validation

The QA/QC and validation of the inventories for stationary combustion will be improved as part of the work that have been initiated for the Danish inventory as a whole.

3.3 Transport (NFR sector 1A2, 1A3, 1A4 and 1A5)

3.3.1 Road transport and other mobile sources (NFR sector 1A2, 1A3, 1A4 and 1A5)

The emissions from transport referring to SNAP category 07 (road transport) and the sub-categories in 08 (other mobile sources) are made up in the following NFR categories:

Table 3.17 SNAP – NFR correspondence table for transport

SNAP classification	NFR classification
07 Road transport	1A3b Transport-Road
0801 Military	1A5 Other
0802 Railways	1A3c Railways
0803 Inland waterways	1A3d Transport-Navigation
080402 National sea traffic	1A3d Transport-Navigation
080403 National fishing	1A4c Agriculture/forestry/fisheries
080404 International sea traffic	1A3d Transport-Navigation (international)
080501 Dom. airport traffic (LTO < 1000 m)	1A3a Transport-Civil aviation
080502 Int. airport traffic (LTO < 1000 m)	1A3a Transport-Civil aviation (international)
080503 Dom. cruise traffic (> 1000 m)	1A3a Transport-Civil aviation
080504 Int. cruise traffic (> 1000 m)	1A3a Transport-Civil aviation (international)
0806 Agriculture	1A4c Agriculture/forestry/fisheries
0807 Forestry	1A4c Agriculture/forestry/fisheries
0808 Industry	1A2f Industry-Other
0809 Household and gardening	1A4b Residential

3.3.2 Source category description

In total, the energy use for road transport has increased until 2000. After that a stagnation in the total energy use is seen. The most fuel consuming vehicle categories are passenger cars followed by heavy-duty vehicles, light duty vehicles and 2-wheelers in decreasing order.

The step-wise lowering of the sulphur content in diesel fuel has brought along a substantial decrease in the emissions of SO₂. In 1999 the sulphur content was reduced from 500 ppm to the present level of 50 ppm.

Historically the emission totals of NO_x and especially NMVOC have been very dominated by the contributions coming from private cars. However, the emissions from the latter types of vehicles has shown a constant lowering trend since the introduction of catalyst in private cars in 1990 (EURO I), and the even more emission efficient EURO II and III private cars (introduced in 1997 and 2001, respectively). The total reductions in emissions of NO_x and NMVOC are fortified by the introduction of new gradually stricter EURO emission standards. For all other vehicle classes see figure 3.18.

Exhaust particulate emissions from road transportation vehicles are below PM_{2.5}. The largest emission contributors in 2002 was light duty vehicles followed by heavy-duty vehicles, passenger cars and 2-wheelers in decreasing order. The emissions from light and heavy duty vehicles have significantly decreased since the mid-1990s due to gradually stricter EURO emission standards, whereas the environmental benefit of introducing diesel private cars with lower particulate emissions since 1990, is more or less outbalanced by increasing vehicle new sales in the later years.

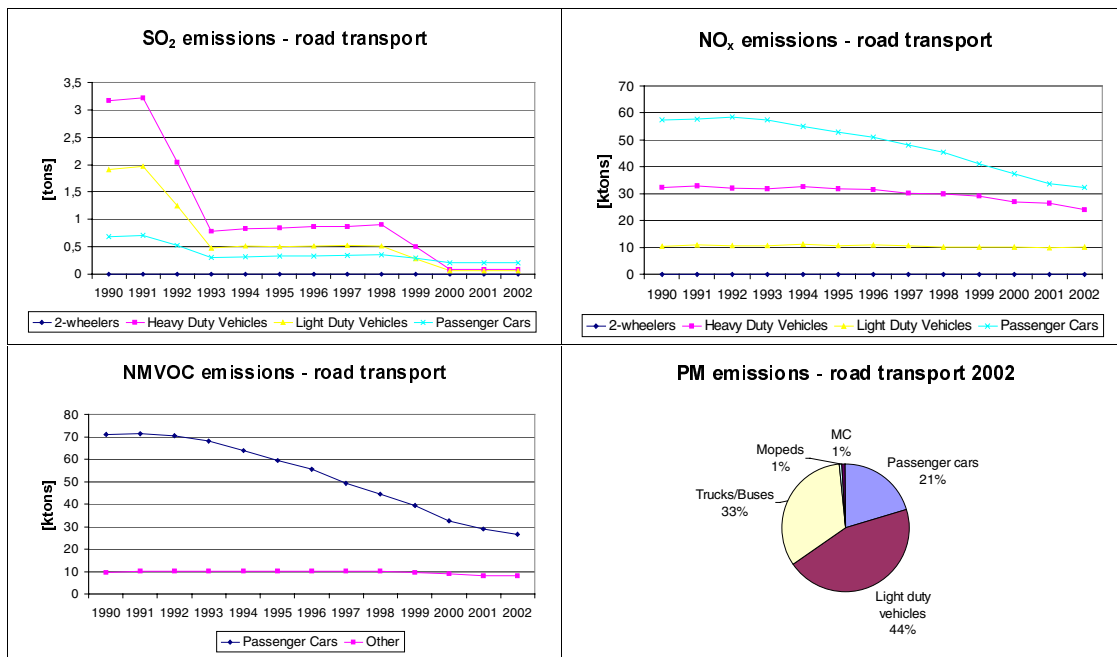


Figure 3.15 Emissions from road transport 1990-2002

It must be noted that the fuel use figures behind the Danish inventory for mobile equipment in the agriculture, forestry, industry, household and gardening (residential) and inland waterways (part of navigation) sectors are more uncertain, than the fuel use development for other mobile sectors. This is due to the fact that DEA statistical figures do not directly provide fuel use information for working equipment and machinery. In general the emissions of NO_x, NMVOC and TSP from diesel fuelled working equipment and machinery have decreased slightly since the end of the 1990s due to the implementation of a two-stage EU emission directive.

In the agriculture/forestry/fisheries sector the fuel use by agricultural machines accounts for two thirds of the total fuel use. The decrease in fuel use is the result of fluctuations in the fuel use for fishery and the constantly decreasing fuel use for agricultural machines between 1990 and 2000.

For NMVOC the most important sectors are navigation (1A3d), agriculture/forestry/fisheries (1A4c), residential (1A4b) and industry (1A2f), with minor emissions coming from railways (1A3c), civil aviation (1A3a) and military (other: 1A5). The reasons for high NMVOC emissions in the first two sectors are the appearance of more gasoline fuelled private boats in navigation and the large amount of diesel used by agricultural tractors. For industry the use of diesel, gasoline and LPG causes the emissions, whereas the relatively large emission contribution from the residential sector solely is caused by gasoline fuelled working machinery (characterised by high emission factors).

NO_x emissions mainly come from diesel machinery and the most important sources are agriculture/forestry/fisheries (1A4c), industry (1A2f), navigation (1A3d) and railways (1A3c). Minor emissions come from civil aviation (1A3a), military (other: 1A5) and residential (1A4b).

The NO_x emission trend for agriculture/forestry/fisheries is the result of fluctuations in the fuel use (and hence emissions) for fishery and the constant emission decrease for diesel fuelled agricultural machines between 1990 and 2000. The fluctuations in fuel use for national sea transport explain the emission development for navigation. The most influencing parameter is the shut down of ferry service connections followed by the opening of the Great

Belt link in 1997. For railways the gradual shift towards electrification explains the lowering trend in diesel fuel use and NO_x emissions for this transport sector.

Sorted by size, the largest TSP contributors in 2002 are agriculture, forestry and fishery (1A4c), industry (1A2f), navigation (1A3d), railways (1A3c), civil aviation (1A3a), military (other: 1A5) and residential (1A4b). The emissions from non-road machinery in agriculture and forestry have decreased slightly since the end of the 1990s because of the strengthened EU emission standards.

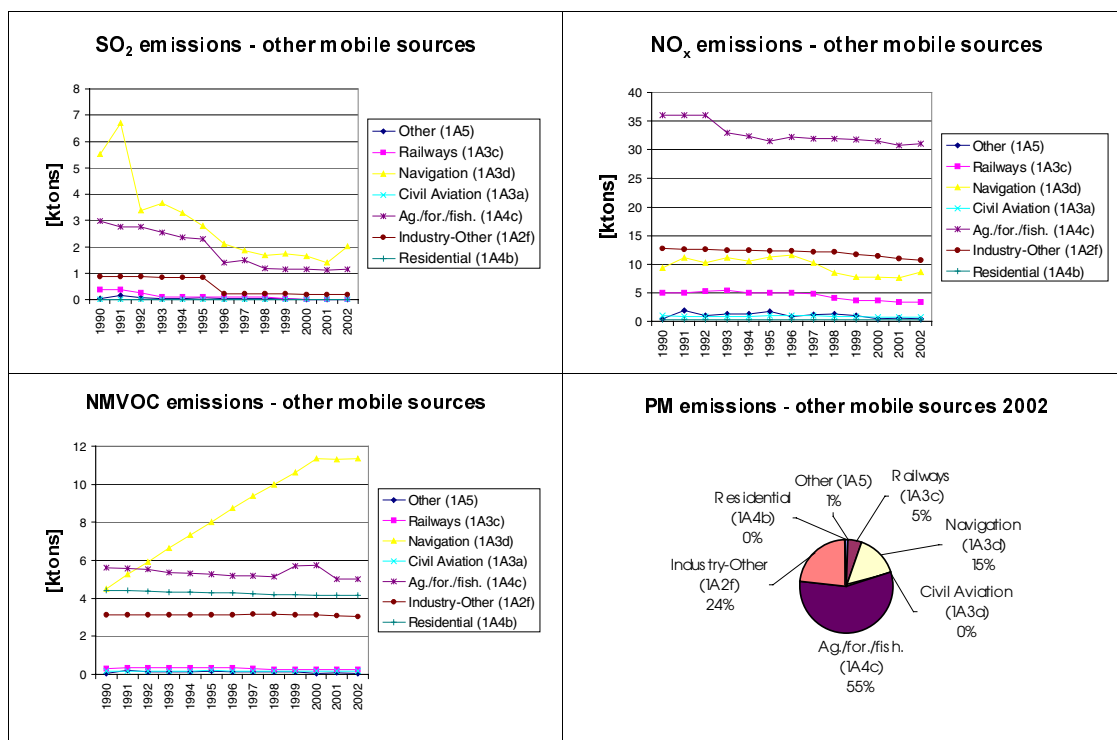


Figure 3.16 Emissions (other mobile sources) 1990-2002

3.3.3 Methodological issues

The description of methodologies and references for the transport part of the Danish inventory is given in two sections; one for road transport and one for the other mobile sources.

3.3.3.1 Methodology and references for Road Transport

For road transport the detailed methodology is used to make annual estimates of the Danish emissions as described in the EMEP/CORINAIR Emission Inventory Guidebook (EMEP/CORINAIR, 2003). The actual calculations are made with the European COPERT III model (Ntziachristos et al. 2000). In COPERT III fuel use and emission simulations can be made for operationally hot engines taking into account gradually stricter emission standards and emission degradation due to catalyst wear. Furthermore the emission effects of cold start and evaporation are simulated.

Vehicle fleet and mileage data

Corresponding to the COPERT fleet classification all present and future vehicles in the Danish traffic are grouped into vehicle layers. This is a sub-division of all vehicle classes into groups of vehicles with the same average fuel use and emission behaviour. An overview of the different layers with years of implementation is given in annex 3.B.1.

Table 3.18 Model vehicle classes, trip speeds and mileage split.

Vehicle class	Fuel type	Engine size/weight	Trip speed			Mileage [%]		
			Urban	Rural	High-way	Urban	Rural	High-way
PC	Gasoline	< 1.4 l.	40	70	100	35	46	19
PC	Gasoline	1.4 – 2 l.	40	70	100	35	46	19
PC	Gasoline	> 2 l.	40	70	100	35	46	19
PC	Diesel	< 2 l.	40	70	100	35	46	19
PC	Diesel	> 2 l.	40	70	100	35	46	19
PC	LPG		40	70	100	35	46	19
PC	2-stroke		40	70	100	35	46	19
LDV	Gasoline		40	65	80	35	50	15
LDV	Diesel		40	65	80	35	50	15
Trucks	Gasoline		35	60	80	32	47	21
Trucks	Diesel	3.5 – 7.5 tonnes	35	60	80	32	47	21
Trucks	Diesel	7.5 – 16 tonnes	35	60	80	32	47	21
Trucks	Diesel	16 – 32 tonnes	35	60	80	19	45	36
Trucks	Diesel	> 32 tonnes	35	60	80	19	45	36
Urban buses	Diesel		30	50	70	51	41	8
Coaches	Diesel		35	60	80	32	47	21
Mopeds	Gasoline		30	30	-	81	19	0
Motorcycles	Gasoline	2 stroke	40	70	100	47	39	14
Motorcycles	Gasoline	< 250 cc.	40	70	100	47	39	14
Motorcycles	Gasoline	250 – 750 cc.	40	70	100	47	39	14
Motorcycles	Gasoline	> 750 cc.	40	70	100	47	39	14

Information of the vehicle stock and annual mileage is obtained from the Danish Road Directorate. This covers data for the number of vehicles, annual mileage, mileage split between urban, rural and highway driving and the respective average speeds.

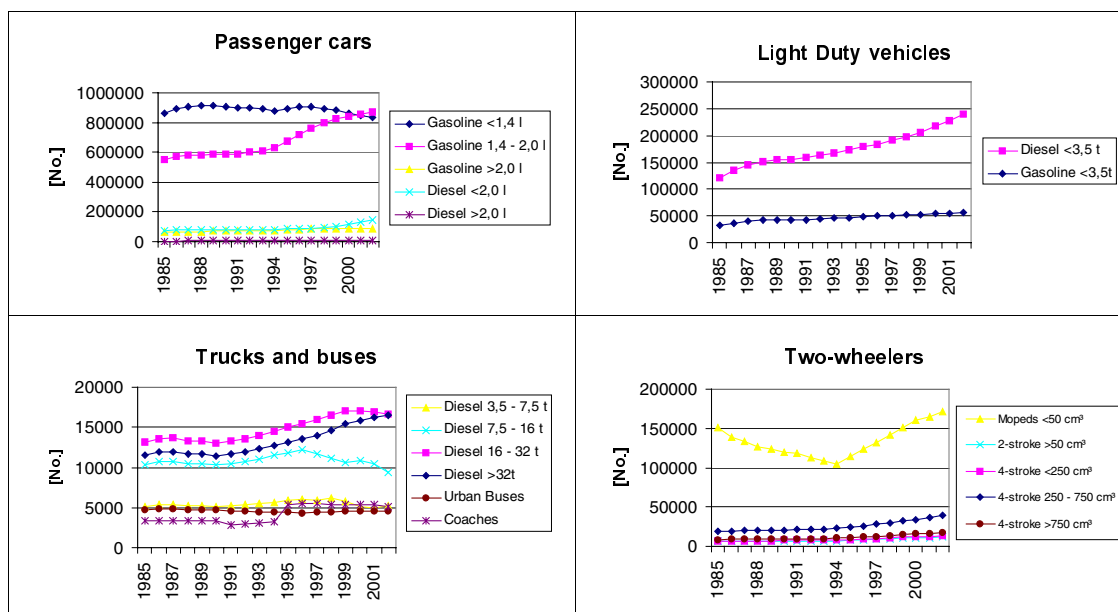


Figure 3.17 Number of vehicles in sub-classes in 1985-2002

The number of vehicles and annual mileages respectively, are provided per first registration year for all vehicle sub-classes. Subsequently the vehicle numbers are summed up in layers, j , for each year, y , by using the correspondance between layers and first registration year, i :

$$N_{j,y} = \sum_{i=FYear(j)}^{LYear(j)} N_{i,y} \quad (1)$$

Weighted annual mileages per layer are calculated as the sum of all mileage driven per first registration year divided with the total number of vehicles in the specific layer.

$$M_{j,y} = \frac{\sum_{i=FYear(j)}^{LYear(j)} N_{i,y} \cdot M_{i,y}}{\sum_{i=FYear(j)}^{LYear(j)} N_{i,y}} \quad (2)$$

Both vehicle numbers and weighted annual mileages per layer are shown in annex 3.B.1.

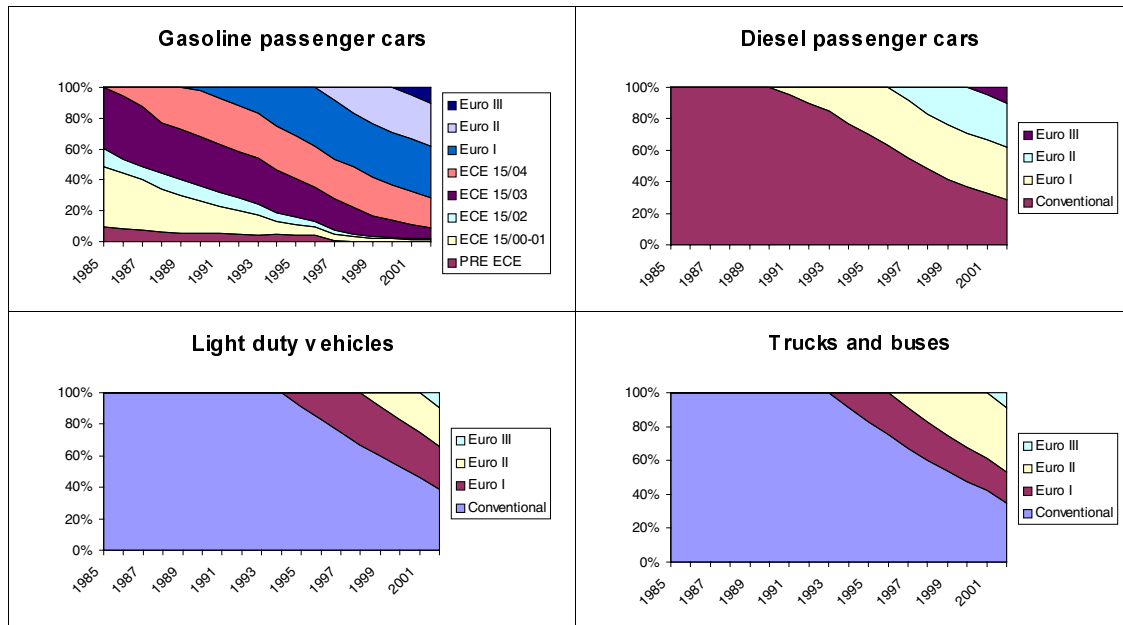


Figure 3.18 Layer distribution of vehicle numbers per vehicle type in 1985-2002

Trip speed dependent fuel use and emission factors are taken from the COPERT model using trip speeds as shown in Table 3.18. The factors are listed in Annex 3.B.2. For new layers not represented by actual data, the emission factors are scaled according to reduction factors (cf. Ntziachristos et al. (2000) or Illerup et al. (2003)).

Deterioration factors

For three-way catalyst cars the emissions of NO_x and NMVOC (and CO) gradually increase due to catalyst wear and are therefore modified as a function of total mileage by the so-called deterioration factors. Even though the emission curves may be serrated for the individual vehicles, on average the emissions from catalyst cars stabilise after a given cut-off mileage is reached due to OBD (On Board Diagnostics) and the Danish inspection and maintenance programme. For each forecast year the deterioration factors are calculated per first registration year by using deterioration coefficients and cut-off mileages, as given in Ntziachristos et al. (2000) or Illerup et al. (2002) for the corresponding layer. The deterioration coefficients are given for the two driving cycles "Urban driving Cycle" (UDF) and "Extra Urban driving Cycle" (EUDF: urban and rural), with trip speeds of 19 and 63 km/h, respectively.

Firstly, the deterioration factors are calculated for the correspondent trip speeds of 19 and 63 km/h in each case determined by the total cumulated mileage less than or exceeding the cut-off mileage. The formulas 3 and 4 show the calculations for the "Urban driving Cycle":

$$UDF = U_A \cdot MTC + U_B, \quad MTC < U_{MAX} \quad (3)$$

$$UDF = U_A \cdot U_{MAX} + U_B, \text{ MTC} \geq U_{MAX} \quad (4)$$

Where UDF is the urban deterioration factors, U_A and U_B the urban deterioration coefficients, MTC = total cumulated mileage, U_{MAX} urban cut-off mileage.

In the case of trip speeds below 19 km/h the deterioration factor, DF , equals UDF , whereas for trip speeds exceeding 63 km/h $DF=EUDF$. For trip speeds between 19 and 63 km/h the deterioration factor, DF , is found as an interpolation between UDF and $EUDF$. Secondly the deterioration factors, one for each of the three road types, are aggregated into layers by taking into account the vehicle numbers and annual mileages per first registration year:

$$DF_{j,y} = \frac{\sum_{i=FYear(j)}^{LYear(j)} DF_{i,y} \cdot N_{i,y} \cdot M_{i,y}}{\sum_{i=FYear(j)}^{LYear(j)} DF_{i,y} \cdot N_{i,y}} \quad (5)$$

where DF is the deterioration factor.

Emissions and fuel use for hot engines

Emissions and fuel use results for operationally hot engines are calculated for each year and layer and road type. The procedure is to combine fuel use and emission factors (and deterioration factors for catalyst vehicles), number of vehicles annual mileage numbers and their road type shares given in Table 3.18. For non-catalyst vehicles this yields:

$$E_{j,k,y} = EF_{j,k,y} \cdot S_k \cdot N_{j,y} \cdot M_{j,y} \quad (6)$$

where E = fuel use/emission, EF = fuel use/emission factor, S = road type share, k = road type.

For catalyst vehicles the calculations becomes:

$$E_{j,k,y} = DF_{j,k,y} \cdot EF_{j,k,y} \cdot S_k \cdot N_{j,y} \cdot M_{j,y} \quad (7)$$

Extra emissions and fuel use for cold engines

Extra emissions of SO_2 , NO_x and $NMVO_C$ (as well as CO , PM , CH_4 , CO_2 and FC) from cold start are simulated separately. In the model each trip is associated with an amount of cold start emission and is assumed to take place under urban driving conditions. The number of trips is distributed evenly in months. Firstly, cold emission factors are calculated as the hot emission factor times the cold:hot emission ratio. Secondly, the extra emission factor during cold start is found by subtracting the hot emission factor from the cold emission factor. Lastly this extra factor is applied on the fraction of the total mileage driven with a cold engine (the β -factor) for all vehicles in the specific layer.

The cold:hot ratios depend on the average trip length and the monthly ambient temperature distribution and are equivalent for gasoline fuelled conventional passenger cars and vans and for diesel passenger cars and vans, respectively (cf. Ntziachristos et al. (2000)). For conventional gasoline and all diesel vehicles the extra emissions become:

$$CE_{j,y} = \beta \cdot N_{j,y} \cdot M_{j,y} \cdot EF_{U,j,y} \cdot (CEr - 1) \quad (8)$$

Where CE is the cold extra emissions, β = cold driven fraction, CEr = Cold:Hot ratio.

For catalyst cars the cold:hot ratio is also trip speed dependent. The ratio is however unaffected by catalyst wear. The EURO I ratio is used for all future catalyst technologies. However, in order to comply with gradually stricter emission standards the catalyst light-off temperature must be reached in even shorter time periods for future EURO standards. Correspondingly the β -factor for gasoline vehicles is step-wise reduced for EURO II onwards.

For catalyst vehicles the cold extra emissions are found from:

$$CE_{j,y} = \beta_{red} \cdot \beta_{EUROI} \cdot N_{j,y} \cdot M_{j,y} \cdot EF_{U,j,y} \cdot (CEr_{EUROI} - 1) \quad (9)$$

where β_{red} = the β reduction factor.

Evaporative emissions from gasoline vehicles

For each year evaporative emissions of hydrocarbons are simulated in the forecast model as hot and warm running loss, hot and warm soak, and diurnal emissions. All emission types are influenced by RVP (Reid Vapour Pressure) and ambient temperature. The emission factors are shown in Ntziachristos et al. (2000).

Running loss emissions originate from vapour generated in the fuel tank during operation. The distinction between hot and warm running loss emissions depend on the engine temperature. In the model hot and warm running loss occur for hot and cold engines, respectively. The emissions are calculated as the annual mileage – broken down on cold and hot mileage totals using the β -factor - times respective emission factors. For vehicles equipped with evaporation control (catalyst cars) the emission factors are only one tenth of the uncontrolled factors used by conventional gasoline vehicles.

$$R_{j,y} = N_{j,y} \cdot M_{j,y} \cdot ((1 - \beta) \cdot HR + \beta \cdot WR) \quad (10)$$

Where R is the running loss emissions and HR and WR the hot and warm running loss emission factors, respectively.

In the model hot and warm soak emissions for carburettor vehicles also occurs for hot and cold engines, respectively. These emissions are calculated as number of trips – broken down into cold and hot trip numbers using the β -factor - times respective emission factors:

$$S_{j,y}^c = N_{j,y} \cdot \frac{M_{j,y}}{l_{trip}} \cdot ((1 - \beta) \cdot HS + \beta \cdot WS) \quad (11)$$

Where S^c is the soak emissions, l_{trip} = the average trip length and HS and WS is the hot and warm soak emission factors, respectively. Since all catalyst vehicles are assumed to be carbon canister controlled no soak emissions are estimated for this vehicle type. Average maximum and minimum temperatures per month are used in combination with diurnal emission factors to estimate the diurnal emissions from uncontrolled vehicles $E^d(U)$:

$$E_{j,y}^d(U) = 365 \cdot N_{j,y} \cdot e^d(U) \quad (12)$$

Each year's total is the sum of each layer's running loss, soak and diurnal emissions.

Fuel use balance

The calculated fuel use in the model must equal the statistical fuel sale totals from the Danish Energy Agency (DEA) according to the UNECE emissions reporting format. The standard approach to achieve a fuel balance in annual emission inventories is to multiply the annual mileage with a fuel balance factor. The fuel balance factor is derived as the ratio between simulated and statistical fuel figures for gasoline and diesel, respectively. This method is also used in the present model.

For gasoline vehicles all mileage numbers are equally scaled in order to obtain a gasoline fuel equilibrium. For diesel fuel the balance is made by adjusting the mileage for light and heavy-duty vehicles and buses, given that the mileage and fuel consumption factors for these vehicles are regarded as the most uncertain parameters in the diesel engine emission simulations.

The final fuel use and emission factors are shown in annex 3.B.3 for 1990-2002. The total fuel use and emissions are shown in annex 3.B.4 per vehicle category and as grand totals for 1990-2002. The components non-exhaust particulates, heavy metals and PAH are not included in the Annex. In Annex 3.B.5 fuel use and emission factors and total emissions are given in CollectER format for 1990 and 2002, while the emission factors and total emissions for heavy metals and PAH are shown in Annex 3.B.7 and 3.B.8.

Non-exhaust particulate emissions from road transport

The TSP, PM₁₀ and PM_{2.5} emissions arising from tyre and brake wear (SNAP 0706) and road abrasion (SNAP 0707) are estimated for the years 2000-2002 as prescribed by the UNECE convention reporting format. The emissions are calculated by multiplying the total annual mileage per vehicle category with the correspondent average emission factors for each source type. The calculation procedure is consistent with the COPERT III model approach used to estimate the Danish national emissions coming from exhaust. A more thorough explanation of the calculations is given by Nielsen et al. (2003) and Winther (2003), and updated emission factors are taken from EMEP/CORINAIR (2003). The emission factors and total emissions for 2002 are shown in annex 3.B.6.

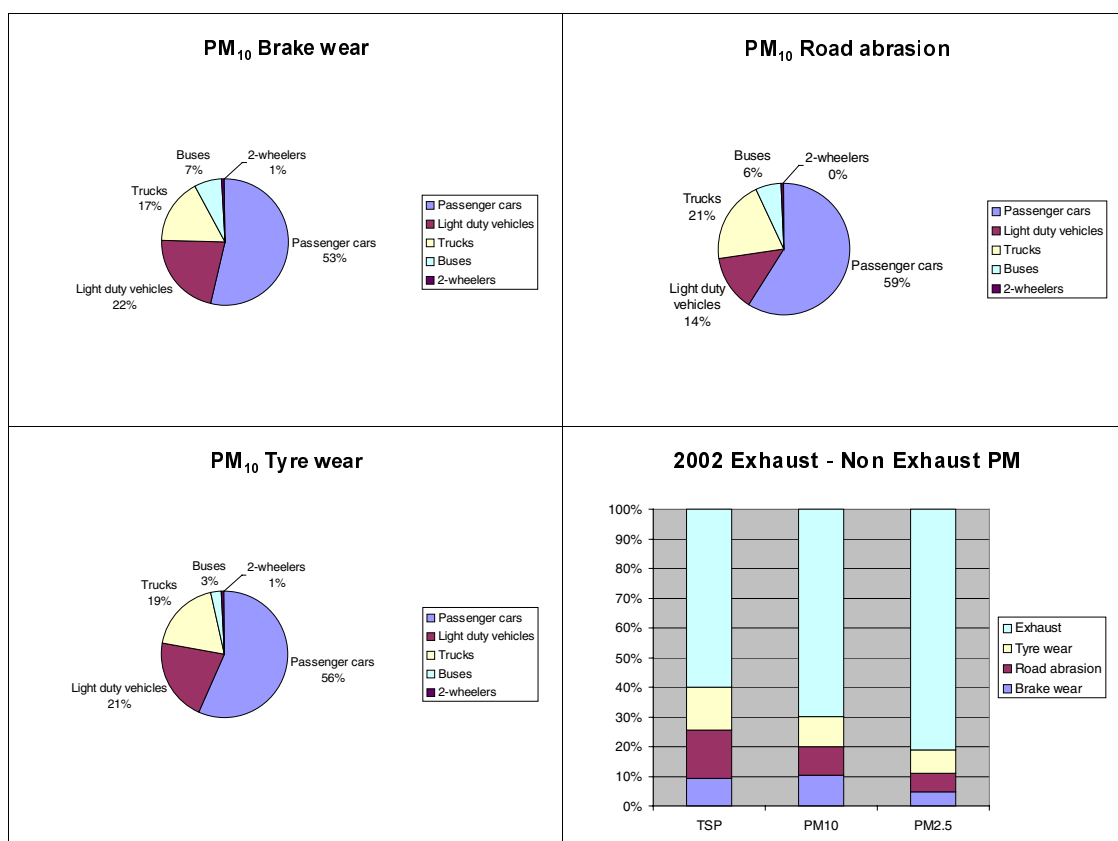


Figure 3.19 Non exhaust particulate emissions from road transport 2002

The respective source category distributions for TSP, PM₁₀ and PM_{2.5} emissions are identical for each of the non-exhaust emission types brake and tyre wear and road abrasion, and hence only the PM₁₀ distributions are shown. For brake and tyre wear passenger cars cause the highest emissions, followed light duty vehicles, trucks, buses and 2-wheelers. Trucks cause more road abrasion emissions than light duty vehicles, but that apart the size order of emission sources is the same as for brake and tyre wear.

The exhaust emission shares of TSP, PM₁₀ and PM_{2.5} are 60, 70 and 81% respectively. For brake and tyre and road abrasion the TSP shares are 9, 14 and 16%. The same three sources have PM₁₀ shares of 11, 10 and 10%, and PM_{2.5} shares of 5, 8 and 6%. In general the non-exhaust shares of total particulate emissions are expected to increase in the future as total exhaust emissions decline. The latter emission trend is due to the stepwise strengthening of exhaust emission standards for all vehicle types.

3.3.3.2 Methodologies and references for other mobile sources

The off road sector is divided into several sub-sectors; sea transport, fishery, air traffic, railways, military and the working machinery and materiel in the industry, forestry, agriculture and household and gardening sectors. The emission calculations are made using the detailed method for air traffic and off road working machinery and equipment, while a simple method is used for the remaining sectors.

Activity data

The activity data for air traffic consist of air traffic statistics provided by the Danish Civil Aviation Agency (CAA-DK) and Copenhagen Airport. For 2001 onwards records are given per flight by CAA-DK as data for aircraft type and origin and destination airports. Prior to 2001 detailed LTO/aircraft type statistics are provided by Copenhagen Airport (for this airport only), while CAA-DK has given information of total take off numbers for other Danish airports. Fuel statistics for jet fuel use and aviation gasoline are obtained from the DEA.

For off road working machinery and equipment the number of different types of machines, their load factors, engine sizes and annual working hours are taken from the Danish EPA (1992 and 1993). Fuel use statistics for diesel, gasoline and LPG are obtained from the DEA in relevant sectors.

The activity data for military, railways, sea transport and fishery consist of fuel use information provided by the DEA. For sea transport the basis is fuel sold in Danish ports and the traffic is defined as either national or international depending on the destination of the vessels in question as prescribed by the IPCC guidelines.

For all sectors fuel use figures are given in Annex 3.B.5 for the years 1990 and 2002.

Emission factors

For military ground material and railways aggregated emission factors for gasoline and diesel are derived from the road traffic emission simulations made with the COPERT model. The emission factors for the remaining sectors come from the EMEP/CORINAIR guidebook, see CORINAIR (2003). For all sectors emission factors are given in CollectER format in annex 3.B.5 for the years 1990 and 2002, for other components than heavy metals and PAH. The emission factors for heavy metals and PAH's are shown in Annex 3.B.7 and 3.B.8, respectively.

Calculation method

For military, railways, national sea traffic and fishing, the emissions are estimated with the simple method using fuel related emission factors and fuel use from the DEA.

For aviation the estimates are made separately for Landing and Take Offs (LTOs < 3000 ft) and cruise (> 3000 ft). From 2001 the estimates are made on a city-pair level by combining activity data and emission factors and subsequently group the emission results into domestic and international totals. In a final step a fuel balance is made. The fuel ratio between model estimates and statistical sales is used to modify the model results of cruise fuel use and emissions according to the domestic and international cruise shares.

Prior to 2001 the calculation scheme is firstly to estimate each year's fuel use and emissions for LTO. Secondly the total cruise fuel use is found year by year as the statistical fuel use total minus the calculated fuel use for LTO. Lastly the cruise fuel use is split into domestic and international parts by using the results from a Danish city pair emission inventory in 1998 (Winther, 2001a). For more details of this latter fuel allocation procedure, see Winther (2001b).

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

The simulations take into account the implementation of a two stage emission legislation directive depending on engine size for relevant types of diesel fuelled machinery. Stage I and II of the directive becomes effective for new machinery in use in 1999-2001 and 1999-2003 respectively.

The amount of fuel sold for non-road machinery cannot be derived explicitly from national fuel sale statistics, and hence it is not possible to make a fuel balance in order to achieve a fuel use equilibrium. Instead, the non-road fuel use amount is estimated directly from the reported activity data by EPA (1992 and 2003) and from EMEP/CORINAIR fuel use factors.

For diesel, the calculated fuel use is partly covered by the fuel use amount in the DEA sectors agriculture and forestry, market gardening and building and construction. The remaining diesel fuel amount is taken from the industry sector. It should be noted that the part of diesel fuel in industry not being used by non-road machinery is included in the sector "Combustion in manufacturing industry" (0301) and "Non-industrial combustion plants" (0203) in the Danish emission inventory. The estimated fuel use for gasoline and LPG is maintained by adjusting the amount of fuel used in the simulations for road traffic and household.

The fuel use for small boats and pleasure crafts is derived in the same way as for non-road machinery. The estimated figures are subsequently subtracted from the fishery sector (diesel) and road transport (gasoline).

The calculated emissions for other mobile sources are shown per sector in annex 3.B.5 for the years 1990 and 2002.

3.3.4 Uncertainties and time-series consistency

Uncertainty estimates are made for road transport and other mobile sources using the guidelines and emission factor uncertainties formulated in the Good Practice Guidance for CLRTAP Emission Inventories by Pulles et al. (2001). However, for TSP the latter source indicate no uncertainty factor. Instead the uncertainty factor used is based on own judgement.

The uncertainty factors for activity data is assumed to be 2 and 10% for road transport and other mobile sources based on own judgement.

No uncertainty estimates are made for exhaust PM₁₀ and PM_{2.5} as well as for the non-exhaust particulate emissions arising from tyre, brake and asphalt wear. The uncertainty estimates should be regarded as preliminary only and may be subject to changes in future inventory documentation. The calculations are shown in annex 3.B.9 for NO_x as an example.

Table 3.19 Uncertainties for UNECE emission factors and total emissions in 2002 and as a trend

	Emission factor uncertainties [%]		Emission uncertainties [%]	
	Road	Other	Overall 2002	Trend
SO ₂	50	50	46	6
NO _x	50	100	53	7
NM VOC	50	100	51	15
CO	50	100	45	8
NH ₃	1000	1000	997	1123
TSP	50	100	59	9
Arsenic	1000	1000	1000	9
Cadmium	1000	1000	789	123
Chromium	1000	1000	788	128
Copper	1000	1000	834	84
Mercury	1000	1000	1000	12
Nickel	1000	1000	875	59
Lead	1000	1000	964	19
Selenium	1000	1000	761	106
Zinc	1000	1000	814	96
Dioxins	1000	1000	718	109
Flouranthene	1000	1000	779	47
Benzo(b) flouranthene	1000	1000	774	8
Benzo(k) flouranthene	1000	1000	818	139
Benzo(a) pyrene	1000	1000	851	61
Benzo(g,h,i) perylene	1000	1000	784	46
indeno(1,2,3-c,d) pyrene	1000	1000	760	13

As regards time-series consistency background flight data cannot be made available on a city-pair level from 2000 and backward. However, aided by LTO/aircraft statistics for these years and the use of proper assumptions, a sound level of consistency is obtained in this part of the transport inventory.

The time-series of emissions for the mobile equipment in the agriculture, forestry, industry, household and gardening (residential) and inland waterways (part of navigation) sectors are less certain than time-series for other sectors. This is due to the fact that DEA statistical figures do not directly provide fuel use information for working equipment and machinery in these sectors.

For 1990 and 2000 background activity data (stock and operation) exist, but for the years in between 1990 and 2000 and for the years beyond 2000 there is a data gap which is difficult to fill in at present being. At current, estimates for intermediate years and years beyond 2000 are produced by interpolation and using 2000 data, respectively (in both situations a new technology penetration rate is assumed)

3.3.5 Quality assurance/quality control (QA/QC)

For road transport and air traffic the detailed methodology and fuel balance approach are used independently to provide a quality control of the emission estimations. Firstly the bottom up approach (detailed methodology) is used as described in the sections 1.1.2.1-1.1.2.2. Secondly the estimates are modified according to a fuel balance using the statistical sale figures respectively for road transportation and civil aviation fuel in Denmark (fuel balance approach), as described in the same sections. The usage of the fuel balance approach ensures that all fuel for road transport and civil aviation is accounted for in the estimations.

For non-road machinery and working equipment the detailed methodology determines the amount of fuel used. The subsequent adjustment of fuel totals to be used in the estimates for other sectors (see section 1.1.2.2) ensure that no double counting of emissions is made.

For the remaining transport sectors the simple method ensure that all fuel is accounted for in the emission estimations.

As a part of the general QA/QC work, all time-series of emissions in the NFR and SNAP source categories are examined and considerable changes are checked and explained. Moreover a comparison is made to the previous year estimates, and any major changes are verified. As a last point a data transfer control is made from SNAP source categories to aggregated NFR source categories.

3.3.6 Recalculations

- Road transport: An updated COPERT III run was made for the year 1999 to include the deterioration effect for catalyst vehicles and more accurate Danish cold start parameters. The Danish inventory for non-exhaust particulate emissions (tyre and brake wear and road abrasion) has been revised according to the new EMEP/CORINAIR guidebook methodology chapter.
- Railways: Updated NO_x , NMVOC, CH_4 , CO and PM emission factors for diesel are used in a time-series from 1985 to 2002 based on real emission measurements carried out by the Danish Railways. For gasoline the minor amount of fuel used by railways is transferred to road transport in the years 1987, 1989-1993 and 1995-2002.
- Inland waterways: A change is made for diesel fuel use in relation to Danish energy statistics based on consultations with the Danish Energy Authority and the Technological Institute of Denmark. Now the estimated amount of diesel fuel use from 1985-2002 is taken directly from the fishery sector in the statistics.
- Fishery: A part of this sector's diesel fuel use is transferred to "Inland waterways" for the years 1985-2002 (see description "Inland waterways").
- International navigation: The Danish Energy Authority has estimated a fuel use for the year 1985, which has been included in the Danish inventory.
- Air traffic: Small changes in emission factors are made for the years 2001 and 2002. Now helicopters are included in background flight data and in addition minor changes are made to the real aircraft type - representative aircraft type relation.
- Agriculture/Forestry/Industry/Household and gardening: A change is made for diesel fuel use in relation to Danish energy statistics based on consultations with the Danish Energy Authority and the Technological Institute of Denmark. Consequently a correction is made to the sectors "0203: Plants in agriculture, forestry and aquaculture" and "0301: Combustion in boilers, gas turbines and stationary" in order to obtain a fuel balance.

3.3.7 Improvements

It will continuously be aspired to fulfil the requirements from UNECE of good practice in inventory making for transport. This year, a note will be made for transport going through the different issues of choices relating to methods (methods used, emission factors, activity

data, completeness, time-series consistency, uncertainty assessment), reporting and documentation, and inventory quality assurance/quality control. The outcome of this description might result in some changes to the inventory in the future.

For navigation an error occurs in the emission estimates for the sub-sector fisheries. A small amount of gasoline that should be transferred to the road transport sector is still included in fuel use for fisheries and thus causes some emissions, most visible for VOC and CO. This will be corrected in next year's national emission report.

3.3.8 Bunkers

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

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

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

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3.4 Fugitive emissions (NFR sector 1B)

3.4.1 Source category description

3.4.1.1 Fugitive emission from solid fuels, NFR sector 1B1a

Coal mining does not take place in Denmark. However power plants use a considerable amount of coal and the CO and PM emission from storage and handling of coal is included in the Danish inventory.

3.4.1.2 Fugitive emissions from natural gas, transmission and distribution (NFR sector 1B2b)

In the year 2002 the length of transmission pipelines including offshore pipeline is 1439 km. The length of distribution pipelines is 18120 km (cast iron 0 km, steel 2185 km, plastics 15935 km). Two natural gas storages are in operation in Denmark. In 2002 the gas input was 530 Mm³ and the withdrawal was 542 Mm³. Emission from gas storage is included in transmission.

3.4.1.3 Flaring, gas (NFR sector 1B2c, Flaring)

Off shore flaring of natural gas is the main source in this sector. Flaring in gas treatment and gas storage plants is however also included in the sector.

3.4.2 Methodological issues

3.4.2.1 Fugitive emission from solid fuels, NFR sector 1B1a

The emission from coal storage is based on data for coal import referring to the official Danish energy statistics (DEA 2003b). The emission factor for CO refers to Haaland 1992 and the factors for PM refer to the TNO CEPMEIP emission factor database.

Table 17 Coal import and emission factors, coal storage and handling

Year	Coal import [Mg coal import]	CO emission factor ¹⁾ [g/Mg coal import]	TSP emission factor ²⁾ [g/Mg coal import]	PM ₁₀ emission factor ²⁾ [g/Mg coal import]	PM _{2.5} emission factor ²⁾ [g/Mg coal import]
1990	10255000	3390	-	-	-
1991	12810000	3390	-	-	-
1992	11942000	3390	-	-	-
1993	10467000	3390	-	-	-
1994	11772000	3390	-	-	-
1995	13009000	3390	-	-	-
1996	13134000	3390	-	-	-
1997	13474000	3390	-	-	-
1998	8071000	3390	-	-	-
1999	7117000	3395	-	-	-
2000	6415000	3395	150	60	6
2001	6924000	3395	150	60	6
2002	6262000	3395	150	60	6

1) Haaland, T. (1992): Emission af drivhusgasser i Danmark 1975-90 med særlig henblik på energisektorens bidrag. Fysisk Lab. III. Danmarks Tekniske Højskole.

2) TNO CEPMEIP database

3.4.2.2 Fugitive emissions from natural gas, transmission and distribution (NFR sector 1B2b)

Inventories of NMVOC emission from gas transmission and distribution is based on annual environmental reports from the Danish gas transmission company, DONG and on a Danish emission inventory for the years 1999-2002 reported by the Danish gas sector (transmission and distribution companies) (Karl 2003). The inventories estimated by the Danish gas sector are based on the work carried out by Marcogas and the International Gas Union (IGU).

In the 1990-1999 inventories fugitive NMVOC emissions from storage facilities and the gas treatment plant are included in the emission factor for transmission. In the 2000-2002 emission inventories transmission, gas storage and gas treatment are registered separately and added.

Gas transmission data are shown in table 18. The emission from gas storage facilities and venting in the gas treatment plant is shown in table 19. Gas distribution data are shown in table 20.

Table 18 NMVOC emission from natural gas transmission

TRANSMISSION	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Transmission rate Mm ³ 1)	2739	3496	3616	3992	4321	4689	5705	6956	6641	6795	7079	7289	7287
NMVOC emission Mg 2)		94	28	57	46	163	56	72	45	56	26	48	24
NMVOC IEF kg/Mm ³ 3)	27,018	27,018	7,821	14,220	10,665	34,839	10,976	10,300	6,776	8,241	3,704	6,567	3,263

1) In 1990-1997 transmission rates refers to Danish energy statistics, in 1998 transmission rate refers to the annual environmental report of DONG, in 1999-2002 emissions refers to DONG/Danish Gas Technology Centre (Karl 2003)

2) Calculation based on the CH₄ emission and the average gas quality in the year 2000. In 1991-95 CH₄ emissions are based on the annual environmental report from DONG for the year 1995. In 1996-99 the CH₄ emission refers to the annual environmental reports from DONG for the years 1996-99. In 2000-2002 the CH₄ emission refers to DONG/Danish Gas Technology Centre (Karl 2003)

3) IEF=Emission/transmission_rate. In 1990 the IEF is assumed to be the same as in 1991

Table 19 Additional fugitive NMVOC emissions from natural gas storage facilities and venting in the gas treatment plant

	2000	2001	2002
Gas treatment plant	2,27 Mg	0 Mg	0 Mg
Gas storage facilities	23,05 Mg	21,96 Mg	20,00 Mg

Table 20 NMVOC emission from natural gas distribution

DISTRIBUTION	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Distribution rate Mm ³ 1)	1574	1814	1921	2185	2362	2758	3254	3276	3403	3297	3181	3675	3420
NMVOC emission Mg 2)										13,11	14,94	17,07	11,86
NMVOC IEF kg/Mm ³ 3)	4,44	4,44	4,44	4,44	4,44	4,44	4,44	4,44	4,44	3,98	4,70	4,65	3,47

1) In 1999-2002 distribution rates refers to DONG / Danish Gas Technology Centre / Danish gas distribution companies (Karl 2003), In 1990-98 distribution rates are estimated from the Danish energy statistics. Distribution rates are assumed to equal total Danish consumption rate minus the consumption rates of sectors that receive the gas at high pressure. The following consumers are assumed to receive high pressure gas: Town gas production companies, production platforms and power plants

2) Calculation based on the CH₄ emission and the average gas quality in the year 2000. The CH₄ emission for 1999-2002 is based on Karl 2003

3) In the years 1999-2002 IEF=CH₄ emission / distribution rate. In 1990-1998 an average IEF of 1999-2001 is assumed.

3.4.2.3 Flaring, gas (NFR sector 1B2c, Flaring)

Emissions from off shore flaring are estimated based on data for fuel consumption from the Danish energy statistics (DEA 2003b) and emission factors for flaring. The emissions from

flaring in gas treatment and gas storage plants are estimated based on annual environmental reports of the plants.

The fuel consumption rates for offshore flaring are shown in table 21. Flaring rates in gas treatment and gas storage plants are not available until 1995.

The emission factors for offshore flaring are shown in table 22. The same emission factors have been applied for 1990-2002. The emission time-series fluctuates due to fluctuation in offshore flaring rates.

Table 21 Natural gas flaring rate (DEA 2003b)

Year	Flaring, off-shore [TJ]	Gas treatment and gas storage [TJ]
1990	4218	-
1991	8692	-
1992	8977	-
1993	7819	-
1994	7709	-
1995	5964	43
1996	6595	30
1997	9629	35
1998	7053	29
1999	15509	32
2000	10023	29
2001	10806	36
2002	8901	44

Table 22 Emission factors for offshore flaring of natural gas

Pollutant	Emission factor
SO ₂	0,3 g/GJ
NO _x	308 g/GJ
NMVOC	87,2 g/GJ
CO	200 g/GJ
TSP	0,1 g/GJ
PM ₁₀	0,1 g/GJ
PM _{2,5}	0,1 g/GJ

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

Oil Refineries – Petroleum products processing: In the production process at the refineries a part of the volatile hydrocarbons (VOC) is emitted to the atmosphere. It is assumed that CH₄ accounts for 1 % and NMVOC for 99% of the emissions. The VOC emissions from petroleum refinery processes cover non-combustion emissions from feed stock handling/storage, petroleum products processing, product storage/handling and flaring. SO₂ is also emitted from the non-combustion processes and includes emissions from products processing and sulphur recovery plants. The emission calculations are based on information from the Danish refineries and the Energy statistic.

Table 3.26 Oil Refineries. Processed crude oil, emissions and emission factors

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Crude oil (1000 Mg)	7263	7798	8232	8356	8910	9802	10522	7910	7906	8106	8406	8284	8045
CH ₄ emission (Mg)	37	39	42	43	57	48	62	45	45	45	50	44	43
CH ₄ emission factor (g/Mg)	5	5	5	5	6	5	6	6	6	6	6	5	5
NMVOC emission (Mg)	3667	3937	4203	4219	5855	4546	5875	4547	4558	4558	4983	4338	4302
NMVOC emission factor (g/Mg)	505	505	511	505	657	464	558	575	577	562	593	524	535

3.4.3 Uncertainties and time-series consistency

Uncertainty estimates have not been carried out.

3.4.4 Source-specific QA/QC and verification

No source-specific QA/QC and verification is performed.

3.4.5 Source-specific recalculations

No recalculations have been carried out.

3.4.6 Source-specific planned improvements

The next report will include the time-series 1985-1989.

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4 Industrial processes

4.1 Overview of the sector

The present sector “*Industrial processes*” comprises combustion processes combined with “*process emissions*” (Combustion in manufacturing industry - processes with contact) as well as process emissions without any contact with energy related emissions. This means that the energy source may be power from central power plants or process heat from e.g. natural gas fired boilers, turbines or stationary engines. The presentation is outlined as follows:

- ◆ Mineral products (NFR 2A) including “Other” (NFR 1A2f)
- ◆ Chemical industry (NFR 2B)
- ◆ Metal production (NFR 2C) including “Iron and steel” (NFR 1A2a) and “non-ferrous metals” (NFR 1A2b)
- ◆ Other production (NFR 2D)

The industrial processes included in the Danish inventory are large companies e.g. cement factory or steelwork as well as a number of small companies e.g. iron foundries. Further, to be included are asphalt concrete plants.

Table 1 presents a survey of sources and groups of pollutants included in the present survey as well as pollutants and sources that will be included in the next survey. Explanations to the abbreviations are given below the table. Table 1 indicates that some groups of substances are planned to be included in the next inventory. In addition to the indicated groups of substances some groups do not include all relevant substances or the time-series are not complete. The detailed information on this subject can be found in the following sectors with an indication on which substances that will be completed/improved in the next inventory.

Table 1 Survey of industrial sectors with SNAP-code and NFR-code included in the Danish inventory.

Industrial sector	SNAP	NFR	Energy	SO _x / NO _x / NH ₃	NMVOC/ CO	TSP/ PM _{10/2,5}	HM	POP
Grey iron foundries	030303	1A2a	ie	+	+	x	x	-
Secondary lead production	030307	1A2b	ie	-	-	x	x	-
Secondary zinc production	030308	1A2b	ie	-	-	x	+	-
Secondary aluminium production	030310	1A2b	ie	-	-	x	+	-
Cement	030311	1A2f	Y	x	x	x	x	-
Lime (incl. iron, steel and paper pulp industry)	030312	1A2f	ie	+	-	x	+	-
Asphalt concrete plants	030313	1A2f	+	+	+	+	-	+/?
Container glass	030315	1A2f	ie	x	x	x	x	-
Glass wool	030316	1A2f	ie	x/+	-	x	+	-
Mineral wool	030318	1A2f	ie	+	-	x	+	-
Paper mill industry	030321	1A2d	Y	-	+	+	-	-
Electric arc furnace	040207	2C1	-	-	-	x	x	+/?
Allied metal manufacturing	040306	2C5	-	-	-	+	x	-
Sulphuric acid	040401	2B5	-	x	-	-	-	-
Nitric acid	040402	2B2	-	x	-	x	-	-
NPK-fertiliser	040407	2B5	-	ie	ie	ie	ie	-
Other (catalysts)	040416	2B5	-	x	-	x	-/?	-
Pesticide production	040525	2B5	-	+	x	+	-	+/?
Bread	040605	2D2	-	-	+	-	-	-
Beer	040607	2D2	-	-	x	-	-	-
Roof covering with asphalt materials	040610	2A5	-	-	+	-	-	+/?
Road paving with asphalt	040611	2A6	-	+	+	-	-	+/?
Cement (decarbonising)	040612	2A1	-	+	-	-	+	-
Glass (decarbonising)	040613	2A7	-	+	-	-	+	-
Lime (decarbonising)	040614	2A2	-	+	-	-	+	-
Other (sugar, chemical ingredients)	040617	2A7	-	x/+	x	x	-	+/?

x Included in the present inventory.

+ Will be included.

- Not included/not relevant.

ie Included elsewhere.

Y Included in the present inventory.

4.2 Mineral products (NFR 1A2f/2A)

4.2.1 Source category description

The sub-sector *Mineral products* (NFR 1A2f/2A) covers the following processes:

- ◆ Production of cement (SNAP 030311/040612)
- ◆ Production of lime (quicklime) (SNAP 030312/040614)
- ◆ Production of container glass/glass wool (SNAP 030315/030316/040613)
- ◆ Production of mineral wool (SNAP 030318)
- ◆ Other (SNAP 040617; Danisco sugar/Danisco ingredients)

The time-series for emission of acidifying substances, heavy metals, NMVOC and particulate matter from *Mineral products* (NFR 1A2f/2A) are presented in Table 2 and Table 3.

The emission of SO₂, NO_x and CO from production of cement depends on raw materials, fuels and combustion conditions. Emissions of NO_x are among other a consequence of high temperature processes and it shows only a minor fluctuation. The emission follows the activity with a minor decrease in the latest years. Emission of SO₂ depends on S-content in fuels and raw materials. However, the process acts as a sink for acidifying gases due to the alkaline conditions in the rotary kiln. Emission of CO shows high fluctuations that can not be explained by known factors.

The emission of NO_x from production of container glass is increasing whereas the emission of CO is decreasing in the period 1997-2002. In the same period of time the activity is nearly constant. Emissions of both substances are related to combustion/process conditions and will be investigated further in the next inventory. Emissions of the heavy metals lead, selenium and zinc are related to the raw materials. Recycled glass constitutes a considerable part of the raw materials and therefore the quality/purity of the glass is a determining factor. Emission of lead shows a decreasing trend that is in accordance with the attempts to avoid lead in glass as well as in wine bottle sealing.

Production of glass wool is expected to result in nearly the same emissions as production of container glass. NH₃ shows a decreasing trend from 1996-2002 as can be verified by the decreasing emission per produced amount. Potential emissions of NO_x, CO and heavy metals are planned to be investigated and included in the next inventory.

Table 2 Time-series for different pollutants from *Mineral products* (ton).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Cement (1A2f/2A1)													
SO ₂	1.458	1.799	1.993	2.020	2.018	2.046	2.177	3.039	2.731	1.527	1.091	1.592	935
NO _x	6.480	7.995	8.856	8.977	8.970	9.095	9.676	9.677	9.984	8.962	9.945	9.774	8.903
CO	1.458	1.799	1.993	2.020	2.018	2.046	2.177	2.681	5.312	3.450	4.014	2.947	1.169
TSP											294	311	185
PM ₁₀											265	280	167
PM _{2.5}											118	124	74
As	0,032	0,040	0,044	0,045	0,045	0,045	0,048	0,054	0,055	0,051	0,052	0,053	0,054
Cd	0,011	0,014	0,015	0,016	0,016	0,016	0,017	0,019	0,019	0,018	0,018	0,019	0,019
Cr	0,016	0,020	0,022	0,022	0,022	0,023	0,024	0,027	0,028	0,026	0,026	0,027	0,027
Cu	0,016	0,020	0,022	0,022	0,022	0,023	0,024	0,027	0,028	0,026	0,026	0,027	0,027
Hg	0,097	0,120	0,133	0,135	0,135	0,136	0,145	0,163	0,165	0,154	0,157	0,160	0,162
Ni	0,032	0,040	0,044	0,045	0,045	0,045	0,048	0,054	0,055	0,051	0,052	0,053	0,054
Pb	0,016	0,020	0,022	0,022	0,022	0,023	0,024	0,027	0,028	0,026	0,026	0,027	0,027
Se	0,011	0,014	0,015	0,016	0,016	0,016	0,017	0,019	0,019	0,018	0,018	0,019	0,019
Zn	0,081	0,100	0,111	0,112	0,112	0,114	0,121	0,136	0,138	0,128	0,131	0,133	0,135
Lime (1A2f/2A2)													
TSP											28	29	37
PM ₁₀											14	14	18
PM _{2.5}											2,76	2,89	3,68
Container glass (1A2f/2A7)													
SO ₂	72	69	63	61	66	61	61	61	61	61	66	67	67
NO _x	-	-	-	-	-	-	-	260	265	386	390	417	417
NM VOC	1,48	1,43	1,31	1,26	1,35	1,26	1,26	1,26	1,26	1,26	1,35	1,39	1,39
CO	-	-	-	-	-	-	-	52,05	16,27	17,19	6,60	7,71	7,71
TSP											26	25	25
PM ₁₀											23	23	23
PM _{2.5}											21	20	20
As	0,020	0,038	0,035	0,034	0,036	0,034	0,017	0,017	0,017	0,017	0,018	0,018	0,018
Cd	0,025	0,048	0,044	0,042	0,045	0,042	0,021	0,021	0,021	0,021	0,023	0,023	0,023
Cr	0,394	0,763	0,696	0,674	0,721	0,672	0,336	0,336	0,336	0,336	0,360	0,370	0,370
Cu	0,098	0,191	0,174	0,169	0,180	0,168	0,084	0,084	0,084	0,084	0,090	0,092	0,092
Hg	0,008	0,016	0,015	0,014	0,015	0,014	0,007	0,007	0,007	0,007	0,008	0,008	0,008
Ni	0,312	0,604	0,551	0,534	0,571	0,532	0,266	0,266	0,266	0,266	0,285	0,293	0,293
Pb	1,164	1,081	0,928	0,857	0,856	1,512	0,700	0,172	0,418	0,562	0,330	0,172	0,172
Se	0,328	0,302	0,261	0,239	0,255	0,448	0,210	0,271	0,072	0,218	0,340	0,271	0,271
Zn	0,164	0,143	0,116	0,098	0,105	0,168	0,070	0,025	0,039	0,045	0,057	0,025	0,025
Glass wool (1A2f/2A7)													
NH ₃	-	-	-	-	-	-	224	296	266	268	225	190	133
TSP											111	119	114
PM ₁₀											100	107	103
PM _{2.5}											78	83	80

Table 3 Time-series for different pollutants from *Mineral products* (ton).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Mineral wool, Hedehusene (1A2f)													
TSP											12	16	11
PM ₁₀											11	14	10
PM _{2.5}											8	11	8
Mineral wool, Vamdrup (1A2f)													
TSP											21	26	22
PM ₁₀											19	23	20
PM _{2.5}											15	18	15
Mineral wool, Doense (1A2f)													
TSP											38	38	48
PM ₁₀											34	34	43
PM _{2.5}											27	27	34
Chemical ingredients (2A7)													
NMVOC	-	-	-	-	-	-	100	93	103	62	40	18	18
Sugar, Assens (2A7)													
TSP											68	51	57
PM ₁₀											17	13	14
PM _{2.5}											2,72	2,04	2,28
Sugar, Nakskov (2A7)													
TSP											66	76	57
PM ₁₀											17	19	14
PM _{2.5}											2,64	3,04	2,28
Sugar, Nykøbing (2A7)													
TSP											57	62	58
PM ₁₀											14	16	15
PM _{2.5}											2,28	2,48	2,32

The emission of NMVOC from production of chemical ingredients shows a decreasing trend and can probably be explained by decreasing emission per produced amount.

4.2.2 Methodological issues

The emission of SO₂, NO_x, CO and TSP from production of cement are measured yearly from 1997 to 2002 (TSP from 2000 to 2002). PM₁₀ and PM_{2.5} are estimated from the distribution between TSP, PM₁₀ and PM_{2.5} from CEPMEIP (2003). For the years 1990-1996 the emission has been estimated from production of cement expressed as TCE (total cement equivalents²) and emission factors from the company Aalborg Portland (Aalborg Portland, 2003). The emission of heavy metals are measured in 1997 (Illerup et al., 1999) and estimated for the other years from emission factors (based on the measurements) and TCE. The activity has varied from 1.6 mio. tonnes TCE in 1990 to 2.7 ton TCE in 2002.

The emission of NO_x, CO, TSP, lead, selenium, and zinc from production of container glass are measured yearly from 1997 to 2001 (TSP from 2000 to 2001) (Rexam Glass Holmegaard, 2002). Emissions in 2002 are expected to be the same as in 2001. PM₁₀ and PM_{2.5} are estimated

² TCE (total cement equivalent) express the total amount of cement produced for sale and the theoretical amount of cement from the produced amount of clinkers for sale.

from the distribution between TSP, PM₁₀ and PM_{2.5} from CEPMEIP (2003). Emissions of arsenic, cadmium, chromium, copper, mercury, and nickel are estimated from standard emission factors and activity data. Emission factors for lead, selenium, and zinc from 1990 to 1996 are estimated by interpolation from 1990 and 1997 figures (Illerup et al., 1999).

The emission of NH₃ and TSP from production of glass wool has been measured yearly from 1996 to 2002 (TSP from 2000 to 2002) (Saint-Gobain Isover, 2003). PM₁₀ and PM_{2.5} are estimated from the distribution between TSP, PM₁₀ and PM_{2.5} from CEPMEIP (2003). The activity has varied from between 33.600 and 39.600 ton glass wool from 1996 to 2002 and in the same period the emission has decreased from approximately 300 to 130 ton NH₃.

The emission of NMVOC from production of chemical ingredients has been measured from 1996 to 2002 (Danisco Grindsted, 2003). The emission has decreased from 100 to 20 ton NMVOC in this period. However, no explanation can be given on these conditions, as information on activity is not available.

4.2.3 Uncertainties and time-series consistency

The time-series are presented in Table 2 and Table 3. The applied methodologies for the different sources within *Mineral products* are considered to be consistent as either measurements or emission factors based on the measurements. However, not all the sources are considered to be complete regarding pollutants and these are expected to be completed in the next inventory by either company specific information or by application of general emission factors.

The time-series for emissions from production of cement are based on measurements combined with emissions factors based on the measurements.

4.2.4 Source-specific QA/QC and verification

The emission factors has been verified and order of magnitude confirmed by comparison with standard emission factors (EMEP/CORINAIR, 2003; CEPMEIP, 2003). No formal source-specific QA/QC has been performed.

4.2.5 Source-specific recalculations

The inventory has been improved with the following pollutants: Production of container glass: NO_x and CO, production of glass wool: NH₃, TSP, PM₁₀, and PM_{2.5}, production of mineral wool: TSP, PM₁₀, and PM_{2.5}, production of chemical ingredients: NMVOC and production of sugar: TSP, PM₁₀, and PM_{2.5}. The process Flat glass has been removed from the inventory as no production occurs in Denmark - only manufacturing of glazing panes.

4.2.6 Source-specific planned improvements

The inventory will be improved regarding completion of pollutants included. Especially glass wool, mineral wool, chemical ingredients, and production of sugar will be extended. The incomplete time-series will also be completed in the next inventory.

4.3 Chemical industry (NFR 2B)

4.3.1 Source category description

The sub-sector *Chemical industry* (NFR 2B) cover the following processes:

- ◆ Production of nitric acid/fertiliser (SNAP 040402/040407)

- ◆ Production of catalysts/fertilisers (SNAP 040416/040407)
- ◆ Production of pesticides (SNAP 040525)

The time-series for emission of acidifying substances, NMVOC and particulate matter from *Chemical industry* (NFR 2B) are presented in Table 4.

Table 4 Time-series for different pollutants from *Chemical industry* (ton).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Nitric acid / fertiliser (2B2/2B5)													
SO ₂	327	151	142	162	215	217	77	3	- ¹	- ¹	- ¹	- ¹	- ¹
NO _x	806	731	640	597	600	612	504	571	419	451	413	410	397
NH ₃	12	22	35	49	91	62	62	37	12	24	13	30	50
TSP											362	346	310
PM ₁₀											290	277	248
PM _{2.5}											217	208	186
Catalysts / fertiliser (2B5)													
NO _x	-	-	-	-	-	-	39	40	53	54	38	22	30
NH ₃	-	-	-	-	-	-	13	13	13	9	14	71	43
TSP											19	19	19
PM ₁₀											15	15	15
PM _{2.5}											11	11	11
Pesticides (2B5)													
NMVOC	390	150	62	40	54	57	113	44	40	41	29	29	27

1. Production of sulphuric acid stopped in 1997.

The time-series for SO₂ follows the produced amounts of sulphuric acid, i.e. the fluctuation follows the activity until the activity was stopped in 1997. The same is the case for NO_x from production of nitric acid; however, the emission of NO_x per produced amount for NO_x has been decreasing from 1994 to 2002. The emission of NH₃ does not follow the activity as it appears from the fluctuation in the emission per produced amount.

The emission of NO_x from production of catalysts/fertilisers decreases from 1996 to 2002 whereas the emission of NH₃ increases. Fluctuation and increase of the "emission factor" can explain the increase in NH₃ emission.

The emission of NMVOC from production of pesticides has been reduced significantly from 1990 to 2002. The decrease can probably be explained by introduction of flue gas cleaning equipment rather than decrease in activity.

The time-series will be explained further in the next section.

4.3.2 Methodological issues

The emission of SO₂, NO_x, NH₃, and TSP from production of sulfuric acid, nitric acid and fertiliser are measured yearly or estimated from 1990 to 2002 (TSP from 2000 to 2002) (Kemira GrowHow, 2003). PM₁₀ and PM_{2.5} are estimated from the distribution between TSP, PM₁₀ and PM_{2.5} from CEPMEIP (2003). The emission for SO₂ and NO_x for 1991 to 1993 were estimated by using interpolated emission factors and activity data. Production of sulphuric acid was stopped in 1997. The emission factor for SO₂ was fluctuating and the emission factor for

NO_x was decreasing from 1990 to 2002. The production of sulphuric acid was decreasing from approximately 150,000 to 60,000 ton between 1990 and 1996 and the production of nitric acid was decreasing from approximately 450,000 to 340,000 ton between 1990 and 2002. The overall production of fertiliser was decreasing from approximately 800,000 to 520,000 ton between 1990 and 2002.

The emission of NH₃, NO_x and TSP from production of catalysts and fertilisers are measured yearly from 1996 to 2002 (TSP from 2000 to 2002) (Haldor Topsøe, 2003). PM₁₀ and PM_{2.5} are estimated from the distribution between TSP, PM₁₀ and PM_{2.5} from CEPMEIP (2003). The process related NO_x emission has been estimated as 80% of the total NO_x emission; Haldor Topsøe reports this assumption in their environmental report. The emission of NH₃ shows an increasing trend and varies between 13 and 43 ton from 1996 to 2002. In the same period the production of catalysts and fertilisers increased from approximately 33,000 to 41,000 ton.

The emission of NMVOC from production of pesticides is measured yearly from 1990 to 2000 (Cheminova, 2003) and estimated for 2001 to 2002. Emission factor based on 2000 figures is used for estimation of 2001 and 2002 emissions. The emission of NMVOC shows a decreasing trend from 1990 to 2002.

4.3.3 Uncertainties and time-series consistency

The time-series are either based on specific measurements or by using company specific emission factors and activity data. Therefore the time-series are considered to be consistent.

4.3.4 Source-specific QA/QC and verification

The emission factors for production of nitric acid and sulphuric acid has been verified by comparison with standard emission factors (EMEP/CORINAIR, 2003).

4.3.5 Source-specific recalculations

The inventory has been improved with the following pollutants: Production of nitric acid/fertiliser: NH₃, TSP, PM₁₀ and PM_{2.5}, catalysts/fertiliser: NO_x, NH₃, TSP, PM₁₀ and PM_{2.5} and pesticides: NMVOC. The activity data for production of nitric acid and sulphuric acid has been corrected in dialogue with the company and implementation of this correction has lead to corrections in the emissions.

4.3.6 Source-specific planned improvements

The time-series for emission of NO_x and NH₃ from production of catalysts and fertilisers are planned to be completed as well as the distribution between energy and process related NO_x would be investigated further.

4.4 Metal production (NFR 1A2/2C)

4.4.1 Source category description

The sub-sector *Metal production* (NFR 1A2/2C) cover the following process:

- Steelwork (SNAP 040207)
- Iron foundries (SNAP 030303)
- Secondary lead production (SNAP 030307)

- Secondary zinc production (SNAP 030308)
- Secondary aluminium production (SNAP 030310)
- Allied metal manufacturing (SNAP 040306)

The time-series for emission of heavy metals and particulate matter from *Metal production* (NFR 1A2/2C) are presented in Table 5.

The emission inventory for metal production is based on specific emissions from a steelwork and secondary aluminium manufacturing as well as average emission factors for iron foundries, secondary lead and zinc manufacturing, and allied metal manufacturing. Regarding the steelwork that use iron and steel scrap as raw material, the emissions to a large degree depends on the quality of the scrap. This fact may result in large annual variations for one or more of the heavy metals. This may be the case for iron foundries as they also use scrap as raw material, but they have not been subjected to the same requirements to analyse emissions of heavy metals to air.

Table 5 Time-series for different pollutants from *Metal production* (metals: kg and particulate matter: ton).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Steelwork (2C1)													
TSP											41	93	- ¹
PM ₁₀											39	88	- ¹
PM _{2.5}											25	56	- ¹
Cd	-	-	-	-	-	-	42	30	38	2	20	36	- ¹
Cr	-	-	-	-	-	-	7,00	0,00	1,00	0,00	0,00	0,00	- ¹
Hg	-	-	-	-	-	-	147	84	61	50	90	184	- ¹
Ni	-	-	-	-	-	-	294	228	112	86	60	123	- ¹
Pb	-	-	-	-	-	-	728	636	373	667	440	871	- ¹
Zn	-	-	-	-	-	-	5.782	5.022	2.416	2.121	1.390	2.786	- ¹
Iron foundries (1A2a)													
TSP											193	171	175
PM ₁₀											58	51	52
PM _{2.5}											8,68	7,71	7,86
As	31	-	-	-	-	-	-	26	26	26	29	26	26
Cd	14	-	-	-	-	-	-	12	12	12	13	12	12
Cr	113	-	-	-	-	-	-	94	94	95	106	94	96
Ni	134	-	-	-	-	-	-	111	112	112	125	111	113
Pb	742	-	-	-	-	-	-	613	618	619	694	617	629
Se	515	-	-	-	-	-	-	426	429	430	482	429	437
Zn	515	-	-	-	-	-	-	426	429	430	482	429	437
Secondary lead (1A2b)													
TSP											1,50	1,50	1,50
PM ₁₀											1,43	1,43	1,43
PM _{2.5}											0,75	0,75	0,75
Cd	0,09	-	-	-	-	-	-	0,09	0,09	0,09	0,09	0,09	0,09
Cu	1,10	-	-	-	-	-	-	1,10	1,10	1,10	1,10	1,10	1,10
Pb	8,75	-	-	-	-	-	-	8,75	8,75	8,75	8,75	8,75	8,75
Secondary zinc (1A2b)													
TSP											0,63	0,63	0,61
PM ₁₀											0,50	0,50	0,49
PM _{2.5}											0,38	0,38	0,36
Zn	-	-	-	-	-	-	-	-	-	-	-	-	-
Secondary aluminium (1A2b)													
TSP											32	33	31
PM ₁₀											29	29	27
PM _{2.5}											13	13	12
Allied metal manufacturing (2C5)													
Cd	3,90	-	-	-	-	-	-	4,53	4,53	4,53	4,53	4,53	4,53
Cu	39	-	-	-	-	-	-	45	45	45	45	45	45
Pb	58	-	-	-	-	-	-	68	68	68	68	68	68
Zn	545	-	-	-	-	-	-	634	634	634	634	634	634

1. The production at the Danish steelwork was stopped in most of 2002 due to reorganisation.

4.4.2 Methodological issues

The emission of heavy metals and TSP from production of steel bars and sheets from steel scrap are based on measurements from the company Stålvalseværket (Stålvalseværket, 2002). PM₁₀ and PM_{2.5} are estimated from the distribution between TSP, PM₁₀ and PM_{2.5} from CEPMEIP (2003). The distribution of metals for 1995/96 (Illerup et al., 1999) is used in estimation of the different metals for the following years. The activity has varied between approximately 600,000 and 800,000 ton from 1990 to 2001. The production has been stopped in the beginning of 2002 and restarted in end of 2002 regarding production of steel sheets and in beginning of 2004 regarding production of steel bars from imported semi-manufactured products.

The emission of heavy metals from iron foundries is based on standard emission factors and yearly production statistics from The Association of Danish Foundries. The emission of TSP and distribution between TSP, PM₁₀ and PM_{2.5} is obtained from CEPMEIP (2003).

The emission of heavy metals from production of secondary lead and allied metal manufacturing is based on average emission factors for Danish producers (Illerup et al., 1999) and activity data from Statistics Denmark. The emission of TSP and distribution between TSP, PM₁₀ and PM_{2.5} is obtained from CEPMEIP (2003).

4.4.3 Uncertainties and time-series consistency

The time-series are either based on specific measurements, company specific emission factors combined with activity data or on standard emission factors combined with public statistics. The same methodology has been applied for the whole time-series and therefore, the time-series are considered to be consistent.

4.4.4 Source specific recalculations

No source-specific recalculation has been performed for the sector *Metal production*.

4.4.5 Source-specific QA/QC and verification

No source-specific QA/QC and verification has been performed for the sector *Metal production*.

4.4.6 Source-specific planned improvements

The time-series will be completed in the next inventory. For especially secondary aluminium and zinc production potential emissions of heavy metals will be investigated.

4.5 Other production (NFR 2D)

4.5.1 Source category description

The sub-sector *Other production* (NFR 2D) cover the following process:

- Beer (SNAP 040607)

The time-series for emission of NMVOC from *Other production* (NFR 2D) are presented in Table 6.

Table 6 Time-series for NMVOC from *Other production* (tonnes).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Beer (2D)													
NMVOC	-	-	-	-	588	629	599	574	503	513	466	452	533

The emission of NMVOC from production of beer follows the activity as the same emission factor has been used for the whole period.

4.5.2 Methodological issues

The emission of NMVOC from breweries is estimated from production statistics (Statistics Denmark) and standard emission factors from the IPCC-guideline (IPCC (1996) vol. 3, Table 2-24).

4.5.3 Uncertainties and time-series consistency

The time-series are based on the same methodology by using public statistics and standard emission factors. Therefore, the time-series is considered to be consistent.

4.5.4 Source-specific recalculations

No source-specific recalculation has been performed for the sector *Other production*.

4.5.5 Source-specific QA/QC and verification

No source-specific QA/QC and verification has been performed for the sector *Other production*.

4.5.6 Source-specific planned improvements

The time-series for emission of NMVOC from production of beer is planned to be completed. Furthermore, production of bread and other food products are planned to be included in the next inventory.

4.6 Uncertainty estimates

Uncertainty estimates for industrial processes (SMAP 04) are presented in Table 7. The uncertainty estimates is based on standard uncertainty factors (EMEP/CORINAIR, 2003).

Table 7 Uncertainty estimates for industrial processes (%).

	Activity data un- certainty	Emission factor uncertainty	Overall 2002	Trend
SO ₂	2	20	20,100	2,872
NO _x	2	50	50,040	1,498
NMVOC	2	50	50,040	3,402
NH ₃	2	1000	1000,002	21,92
Cadmium	2	1000	1000,002	0,299
Copper	2	1000	1000,002	3,291
Lead	2	1000	1000,002	0,064
Zinc	2	1000	1000,002	0,149

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5 Solvents and other product use (CRF: 3 SNAP: 06)

5.1 The present NMVOC inventory

Use of solvents is an important source of evaporation of NMVOC and contributed in 2001 with approximately 31 % of the total NMVOC emission. The most important sectors for industrial use of solvents are: Car repairing and treatment, chemical industry, paint application in iron and steel industry, paint manufacturing, the plastic industry, the foodstuff industry, preservation of wood and the printing industry. For these sectors the Government and the industries agreed to reduce the emissions of NMVOC by 40 % from 1988 to 2000. The reduction targets for each trade was estimated by trades and companies.

As a part of an agreement between the Danish Industry and the Danish Environmental Protection Agency the emissions from various industries have been reported to the Danish EPA. The reporting is not annual and linear interpolation is used between the reporting years.

In the Danish inventory emission estimates for solvent use are made for paint application (SNAP category 0601) in the sectors: construction and buildings, domestic use, boat building and wood. Chemical product manufacturing and processing includes: polyester processing, polyurethane processing, polystyrene foam processing, paint manufacturing, glues manufacturing and other product manufacturing and processing (SNAP category 0603). The use of solvents in *Other use of solvents and related activities* (SNAP category 0604) takes places in the sectors: printing industry, fat, edible and non edible oil extraction, application of glues and adhesives, underseal treatment and conservation of vehicles, domestic solvent use and other uses (Reference: Report from the Danish EPA, 1995, no. 50, VOC reduction plants (in Danish)). The emission trends are given in Table 5.1.

It is important to notice that not all the use of solvents are included in this agreement and no activity data has been available. A work is going on to improve the emission estimates and in section 5.1 a brief description of the new methodology is given.

5.2 The new methodology regarding Solvents

The emissions of Non-Methane Volatile Organic Carbon (NMVOC) from industrial and household use in Denmark has been assessed. Until now the NMVOC inventory in Denmark has been based on questionnaires and interviews with different industries, regarding emissions from specific activities, such as lacquering, painting impregnation etc. However, this approach implies large uncertainties due to the diverse nature of many solvent-using processes. For example, it is inaccurate to use emission factors derived from one printwork in an analogue printwork, since the type and combination of inks may vary considerably. Furthermore the employment of abatement techniques will result in loss of validity of estimated emission factors.

A new approach has been introduced, focusing on single chemicals instead of activities. This will lead to a clearer picture of the influence from each specific chemical, which will enable a more detailed differentiation on products and the influence of product use on emissions.

The procedure is to quantify the use of the chemicals and estimate the fraction of the chemicals that is emitted as a consequence of use. Mass balances are simple and functional methods for calculating the use and emissions of chemicals

$$use = production + import - export - destruction/disposal - hold up \quad (Eq. 1)$$

$$emission = use * emission factor \quad (Eq. 2)$$

where “hold up” is the difference in the amount in stock in the beginning and at the end of the year of inventory.

A mass balance can be made for single substances or groups of substances, and the total amount of emitted chemical is obtained by summing up the individual contributions. It is important to perform an in-depth investigation in order to include all relevant emissions from the large amount of chemicals. The method for a single chemical approach is shown in Figure 5.1.

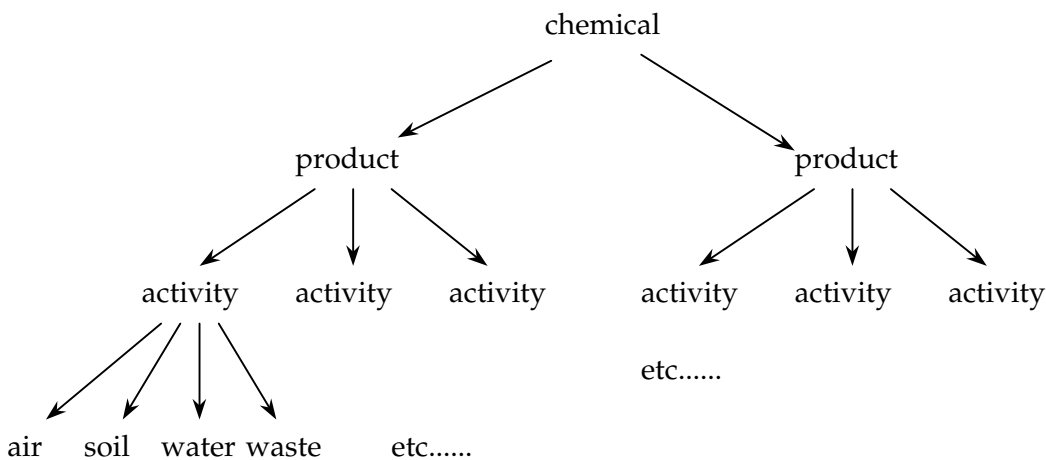


Figure 5.1 Methodological flow in a chemical based emission inventory.

The tasks in a chemical focused approach are

- 1) Definition of chemicals to be included
- 2) Quantification of use amounts from Eq. 1
- 3) Quantification of emission factors for each chemical

In principle all chemicals that can be classified as NMVOC must be included in the analysis, which implies that it is essential to have an explicit definition of NMVOC. The definition of NMVOC is, however, not consistent; In the EMEP-guidelines for calculation and reporting of emissions, NMVOC are defined as “all hydrocarbons and hydrocarbons where hydrogen atoms are partly or fully replaced by other atoms, e.g. S, N, O, halogens) which are volatile under ambient air conditions, excluding CO, CO₂, CH₄, CFCs and halons”. The amount of chemicals that fulfil these criteria is large, and a list of 650 single chemicals and a few chemical groups described in “National Atmospheric Emission Inventory”, is used. It is probable that the major part will be insignificant in a mass balance, but it is not correct to exclude any chemicals before a more detailed investigation has been made.

Production, import and export figures are extracted from Statistics Denmark, from which a list of 427 single chemicals, a few groups and products is generated. For each of these a *use* amount in tonnes pr. year (from 1995 to 2003) is calculated. It is found that that 44 different NMVOC comprise over 95 % of the total use, and it is these 44 chemicals that are investigated further.

The *use* amounts are distributed according to the SNAP coding, defined in EMEP/CORINAIR Emission Inventory Guidebook, Group 6: Solvent and other product use. In the Nordic SPIN (Substances in Preparations in Nordic Countries) database information is available in a NACE coding system, on industrial use categories and products specified for individual chemicals. In order to perform a spatial disaggregation, by relating the chemicals to specific products and/or activities, the SNAP codes are coupled with NACE codes.

Emission factors, cf. Eq. 2, are obtained from regulators or the industry and can be provided on a site by site basis or as a single total for whole sectors.

Outputs from the inventory are

- a list where the 44 most predominant NMVOCs are ranked according to emissions to air,
- specification of emissions from industrial sectors and from households,
- contribution from each NMVOC to emissions from industrial sectors and households,
- tidal (annual) trend in NMVOC emissions, expressed as total NMVOC and single chemical, and specified in industrial sectors and households.

Table 5.1 Use of solvents. NMVOC emissions for various sectors (Reference: Report from the Danish EPA, 1995, no. 50, VOC reduction plants (in Danish))

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
0601	Paint application	0												
060101	Paint application : manufacture of automobiles													
060102	Paint application : car repairing	0	0	0	0	0	0	0	0	0	0			
060103	Paint application : construction and buildings	9452	9497	9542	9586	9631	9676	9721	9766	9810	9855	9900	9900	9900
060104	Paint application : domestic use (except 06.01.07)	9452	9497	9542	9586	9631	9676	9721	9766	9810	9855	9900	9900	9900
060105	Paint application : coil coating													
060106	Paint application : boat building	0	0	0	0	0	0	0	0	0	0			
060107	Paint application : wood	6500	6192	5884	5576	5276	4960	4652	4344	4036	3728	3420	3420	3420
060108	Other industrial paint application	0	0	0	0	0	0	0	0	0	0			
060109	Other non industrial paint application													
0603	Chemical products manufacturing or processing													
060301	Polyester processing	470	478	486	494	502	510	518	526	534	542	550	550	550
060302	Polyvinylchloride processing													
060303	Polyurethane processing	3	3	3	3	3	3	3	4	4	4	4	4	4
060304	Polystyrene foam processing (c)	920	919	918	917	916	915	913	913	912	911	910	910	910
060305	Rubber processing													
060306	Pharmaceutical products manufacturing													
060307	Paints manufacturing	300	298	296	294	292	290	288	286	284	282	280	280	280
060308	Inks manufacturing													
060309	Glues manufacturing	24	23	22	20	19	18	17	16	14	13	12	12	12
0603010	Asphalt blowing													
0603011	Adhesive, magnetic tapes, films and photographs													
060314	Other	930	877	823	770	716	663	610	556	503	449	396	396	396
0604	Other use of solvents and related activities													
060401	Glass wool enduction													
060402	Mineral wool enduction													
060403	Printing industry	1575	1462	1349	1235	1122	1009	896	783	669	556	443	443	443
060404	Fat, edible and non edible oil extraction	1920	1893	1866	1839	1812	1785	1758	1731	1704	1777	1650	1650	1650
060405	Application of glues and adhesives	2700	2580	2460	2340	2220	2100	1980	1860	1740	1620	1500	1500	1500
060406	Preservation of wood	0	0	0	0	0	0	0	0	0	0			
060407	Underseal treatment and conservation of vehicles	1400	1345	1290	1290	1180	1125	1070	1015	960	905	850	850	850
060408	Domestic solvent use (other than paint application)	6653	6807	6961	7115	7269	7423	7576	7730	7884	8038	8192	8192	8192
060409	Vehicles dewaxing													
060411	Domestic use of pharmaceutical products (k)													
060412	Other (preservation of seeds,...)	0	0	0	1696	0	0	0	0	0	0			

6 Emission of ammonia and particulate matter from the agricultural sector

6.1 Overview

6.1.1 Ammonia

The majority of the Danish ammonia emission, corresponding to 97%, originates from the agricultural sector. The remaining 3% originate from traffic and industrial process. Figure 2 shows the distribution of sources of NH_3 emission from the agricultural sector 2002. The main part of the emission is related to manure management, corresponding to 79%. Emissions from use of synthetic fertiliser and crops contribute with 6% and 14% respectively. Emissions from ammonia treated straw, sewage sludge + industrial waste used as fertiliser amount to less than 1%.

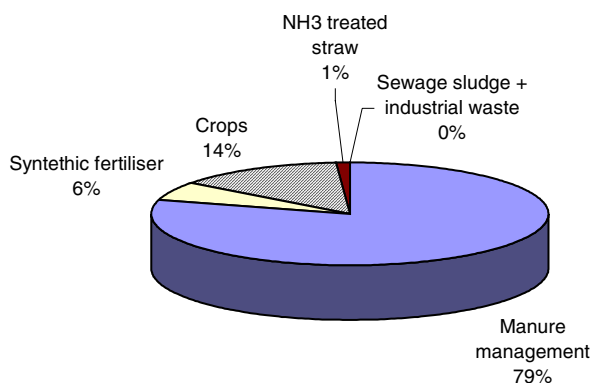


Figure 1 Ammonia emissions from the agricultural sector (2002)

From 1985 to 2002 the emission of ammonia has decreased from 138.39 Gg NH_3 to 98.30 Gg NH_3 which corresponds to a 29% reduction. This is due to the offensive National environmental policy during the last twenty years. The environmental policy has introduced a series of measures to prevent loss of nitrogen from the agriculture to the aquatic environment. The measures includes improved utilisation of nitrogen in husbandry manure, ban on manure application in autumn and winter, increased area with winter green fields to catch nitrogen, a maximum number of animals per hectare and a maximum nitrogen application rates to agricultural crops. The result of this policy is a decreasing N-excretion, N-leaching and NH_3 emission per produced animal.

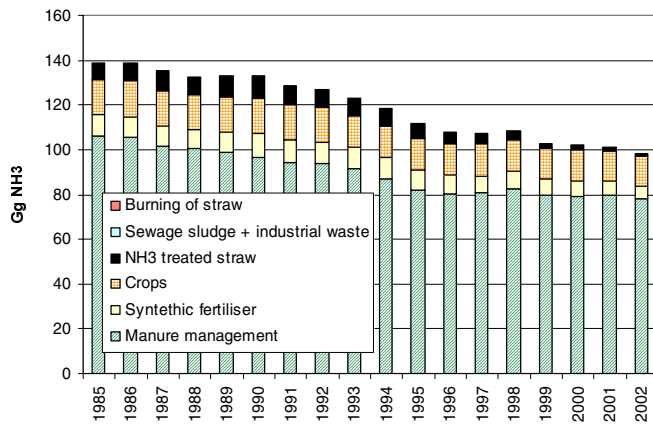


Figure 2 Ammonia emissions from the agricultural sector 1985 to 2002

6.1.2 Particulate matter

In NRF the emission of particulate matter (PM) is registered for the years 2000 to 2002. The emission includes emission of dust from stables and this emission contributes with 49% of the national PM emission in 2002.

Using the same method for previous years, it is seen that the total emission of particles given in TSP has increased with 24% from 1985 to 2002 (fig. 3). The same emission factor is used for all years, which means that the development is alone depending on the number of produced animal. The increased emission is due to an increase in the production of pigs. The emission level in 2002 is nearly the same as in 2001.

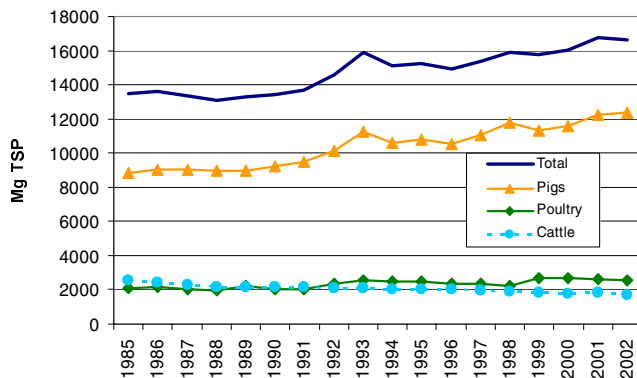


Figure 3 Emission of particulate matter from the agricultural sector 1985 to 2002

6.1.3 References – sources of information

Data on activity and emissions are collected, evaluated and discussed in co-operation with research institutes in the agricultural sector and the administration. These institutes are Statistics Denmark, the Danish Institute of Agricultural Sciences, the Danish Agricultural Advisory Centre, Danish Environmental Protection Agency and the Danish Plant Directorate. It means that both the data and the methods will be evaluated continuously according to the latest knowledge and information. Table 1 shows the topics where the different institutions collaborate.

Table 1 List of institutes involved in the emission inventory

References	Abbreviation	Data / information
National Environmental Research Institute (http://www.dmu.dk)	NERI	-reporting -data collecting
Statistics Denmark - Agricultural Statistic (http://www.dst.dk)	DS	-no. of animal -milk yield -slaughtering data -land use -crop production
Danish Institute of Agricultural Sciences (http://www.agrsci.dk)	DIAS	-N-excretion -feeding situation -NH ₃ emissions factor -PM emissions factor
The Danish Agricultural Advisory Service, National centre (http://www.lr.dk)	AASN	-stable type -grazing situation -manure application time and methods
Danish Environmental Protection Agency (http://www.mst.dk)	EPA	-sewage sludge + industrial waste used as fertiliser
The Danish Plant Directorate (http://www.plantedirektoratet.dk)	PD	-organic farming -synthetic fertiliser

6.1.4 Methods

The calculation of the emission is based on EMEP-CLRTAP Emission Inventory Guidebook. Concerning the PM emission the TNO/CEPMEIP study has been used (<http://www.air.sk/tno/cepmeip/>). The emissions from agricultural activities include NRF table 4B Manure Management and table 4D Agricultural Soils. Table 4F Field burning of agricultural wastes is only registered until 1989. Burning of straw has been prohibited since 1989 and may only take place in connection with cultivation of seed grass. It is assumed that the emission is insignificant and hence not included in the emission inventory from 1990.

The emission is calculated as the sum of activities (a_i) multiplied by the implied emission factor (ief) for each activity, i .

$$E_{\text{total}} = \sum a_i \cdot \text{ief}_i$$

The emission estimates are calculated in a comprehensive agricultural model complex (DIEMA) covering NH₃, PM and the green house gases; methane (CH₄), nitrous oxide (N₂O) and CO₂. Ammonia, CH₄ and N₂O are implemented in a great detail. The submodule covering LULUCF and CO₂ will be implemented in 2004. An overview of DIEMA is given in figure 4.

The system has been developed in close corporation with the Danish Institute of Agricultural Sciences and the Danish Agricultural Advisory Centre.

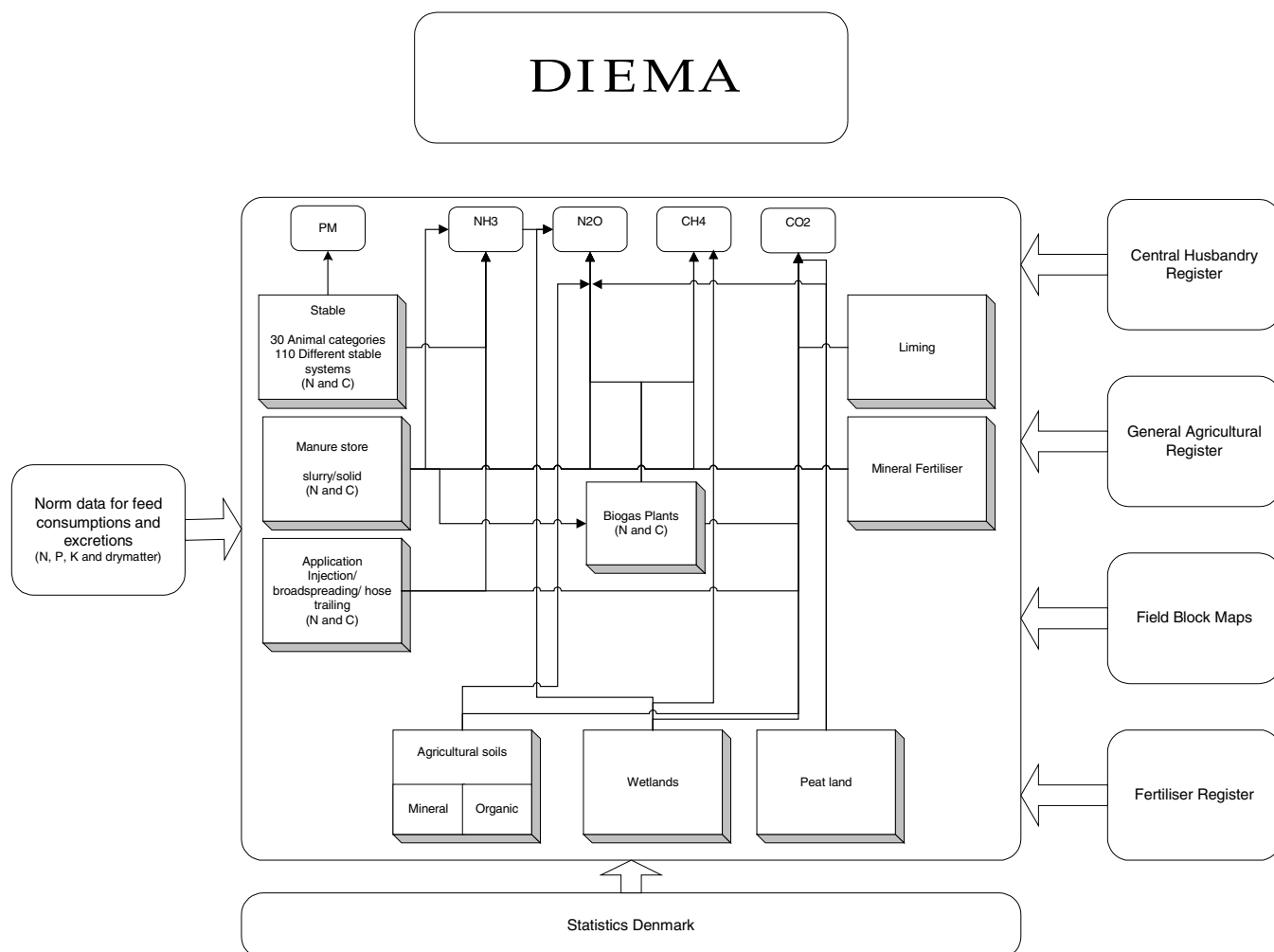


Figure 4 DIEMA – Danish Integrated Emission Model for Agriculture

The Danish standards related to feeding consumption, manure type in different stable type, nitrogen content in manure etc. are described and published by the Danish Institute of Agricultural Sciences (Poulsen et al. 2001). These standards are updated annually. In 1998 these standards was published in English (Poulsen & Kristensen 1998). The main part of the emission from the agricultural sector is related to the livestock production. DIEMA is using about 30 livestock categories depending on type of livestock and weight class. Each category is subdivided according to stable type and manure type. The emission is calculated from each category.

6.2 NH₃ emission from Manure Management – NRF 4.B

6.2.1 Description

In the NRF category 4.B the NH₃ emission from manure management also includes emission from sewage sludge used as fertiliser. Emission from sewage sludge contributes with less than 1% from the total emission from manure management.

In figure 5 is shown of the emission from manure management distributed on different livestock categories in 2002. It is seen that the majority of the emission is related to the cattle- and swine production, corresponding to 86%.

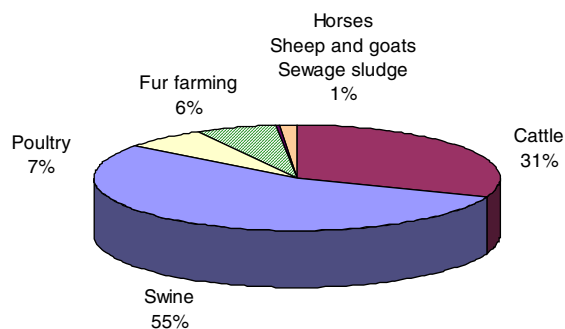


Figure 5. Ammonia emission from manure management 2002

6.2.2 Methodological issues

6.2.2.1 Activity data

The numbers of animals are taken from the Agricultural Statistic (Statistics Denmark). For slaughtering pigs and poultry the production level (produced numbers) is used instead of the number given in the census. This to improve the emission estimates. Only farms larger than 5 hectares are included in the annual census. An approximate number of sheep, poultry and horses on these smallholdings are added to the number in the Agricultural Statistics in agreement with DAAC. The largest difference is found for horses. In the Agricultural census the number is estimated 40000 horses. The total number of horses in 2002 - including horses placed on small farms and riding schools are approximately 153000.

Each animal category in NRF categories includes a certain number of subcategories in the Danish emission inventory, which depend on stable type, weight class and animal type (table 2). In table 3 the development in number of animal from 1990 to 2002 is given.

Buffalo, camels and llamas, mules and donkeys do not occur in Denmark.

Table 2. Livestock categories and subcategories.

NRF 4B	Animal categories	Include	No. of subcategories in DIEMA (animal type/stable system)
4B 1a	Dairy Cattle	Dairy Cattle (heavy breeding and Jersey)	9
4B 1b	Non-dairy	Calves, heifers, bulls, suckling cattle (heavy breeding and Jersey)	22
4B 3	Sheep	Breeding ewes	1
4B 4	Goats		1
4B 6	Horses	400 kg, 600 kg, 800 kg	3
4B 8	Swine	Sows, piglets, slaughter pigs	17
4B 9	Poultry	hens, pullet, broilers, turkey, geese, duck	16
4B 13	Other	Fur farming Sewage sludge	4 -

Table 3. Number of animals from 1990 to 2002 (NRF)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
		<u>1000 head</u>												
NRF	Animal category													
4b 1a	Dairy Cattle	753	742	712	714	700	702	701	670	669	640	636	623	610
4b 1b	Non-dairy cattle	1 486	1 480	1 478	1 481	1 405	1 388	1 393	1 334	1 308	1 247	1 232	1 284	1 187
4B 3	Sheep	92	107	102	88	80	81	94	78	83	83	81	92	74
4B 4	Goats	8	9	9	9	9	9	9	10	10	10	10	11	11
4B 6	Horses	135	137	138	140	141	143	144	146	147	149	150	152	153
4B 8	Swine	9 497	9 783	10 455	11 568	10 923	11 084	10 842	11 383	12 095	11 626	11 922	12 608	12 732
4B 9	Poultry	16 249	15 933	19 041	19 898	19 852	19 619	19 888	18 994	18 674	21 010	21 830	21 236	20 580
4B 13	Other – fur farming	2 264	2 112	2 283	1 537	1 828	1 850	1 918	2 212	2 345	2 089	2 199	2 304	2 422

6.2.2.2 Implied emission factor

Table 4 is shown the implied emission factor for each animal category from 1990 to 2002. The implied emission factor expresses the average ammonia emission per animal (from the census) per year. The implied emission factor is changing from year to year depending on a combination of several factors as:

- ◆ **number of animal in subcategories** (- e.g. an increase in the percentage of large horses 800 kg will increase the implied emission factor)
- ◆ **N-excretion** based on standards given from the Danish Institute of Agricultural Sciences.
- ◆ **stable type** estimated by the Danish Agricultural Advisory Centre
- ◆ **emissions from manure management in stable and storage** based on standards given from the Danish Institute of Agricultural Sciences.
- ◆ **emissions in relation to spreading of manure in the field** based on different investigations among others a study from 2002 based on questionnaire from 1600 framers ordered by the organisation Danish Agriculture.

More detailed explanations and tables for these factors used in the Danish emission inventory are given in annex 6.

For all animal categories the implied emission factor has decreased from 1990 to 2002, which are the result of measures in relation to implementation of the Action plans on the Aquatic Environment and the Ammonia Action Plan. Increasing demands to improve the utilisation of nitrogen in manure has result in reduction of the N-excretion and especially for swine. Changes in manure management in relation to spreading are another important factor, which has reduced the emission. Broad spreading is not longer allowed and a still increasing part of slurry is incorporated in the soil.

Table 4 Implied emission factor from 1990 to 2002 (NRF)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
	<u>kg NH₃/head/yr</u>													
NFR	<u>Animal category</u>													
4b 1a	Dairy cattle	31.97	30.98	30.00	29.03	28.07	27.12	26.32	26.42	26.53	26.34	27.07	26.96	26.34
4b 1b	Non-dairy cattle	7.48	7.18	6.96	6.73	6.43	6.16	6.07	5.98	5.94	6.12	6.41	6.43	6.13
4B 3	Sheep	1.86	1.87	1.87	1.88	1.88	1.89	1.74	1.58	1.43	1.29	1.45	1.43	1.41
4B 4	Goats	1.86	1.87	1.87	1.88	1.88	1.89	1.74	1.58	1.43	1.29	1.45	1.43	1.36
4B 6	Horses	7.90	7.71	7.51	7.32	7.13	6.94	6.92	6.89	6.85	7.01	6.87	6.77	6.69
4B 8	Swine	4.99	4.81	4.60	4.19	4.09	3.70	3.71	3.63	3.57	3.61	3.40	3.23	3.23
4B 9	Poultry	0.27	0.27	0.24	0.25	0.27	0.26	0.25	0.26	0.26	0.24	0.23	0.24	0.24
4B 13	Other animals	2.35	2.30	2.28	2.25	2.21	2.18	2.17	2.16	2.15	2.14	2.09	2.05	2.00

6.2.3 Time-series

The emission of NH₃ from manure management is estimated to 75.45 Gg NH₃ in 2002. From 1990 to 2002 the emission is reduced with 19%. As mention before, this development is mainly due to an active environmental policy to reduce the nitrogen losses in the agricultural production.

The number of cattle has decreased as a result of growth in milk yield. In 2002 the cattle production contributes with 21% of the total emission from manure management. A still increasing part of the emission origins from the swine production, which has decreased by more than 30% compared to 1990. However, the emission from swine is decreasing despite the growth in the swine production. This is due to a focus on the biological development and improvement in fodder efficiency.

Table 5 Emission of NH₃ from manure management 1990 - 2002

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
	<u>Gg NH₃</u>													
NFR	<u>Animal category</u>													
4b 1a	Dairy cattle	24.08	22.97	21.36	20.73	19.64	19.05	18.44	17.71	17.75	16.86	17.20	16.81	16.06
4b 1b	Non-dairy cattle	11.11	10.63	10.28	9.97	9.03	8.55	8.45	7.98	7.77	7.63	7.90	8.25	7.27
4B 3	Sheep	0.17	0.20	0.19	0.17	0.15	0.15	0.16	0.12	0.12	0.11	0.12	0.13	0.10
4B 4	Goats	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.02
4B 6	Horses	1.07	1.05	1.04	1.02	1.01	0.99	1.00	1.00	1.01	1.04	1.03	1.03	1.02
4B 8	Swine	47.40	47.05	48.11	48.48	44.69	40.98	40.19	41.27	43.14	42.02	40.59	40.76	41.07
4B 9	Poultry	4.31	4.32	4.56	4.90	5.41	5.05	4.93	4.89	4.81	4.95	5.01	5.03	4.97
4B 13	Other													
	a. Fur farming	5.32	4.86	5.21	3.46	4.05	4.03	4.17	4.78	5.05	4.47	4.60	4.72	4.85
	b. Sewage sludge	0.07	0.07	0.09	0.11	0.10	0.11	0.10	0.09	0.09	0.08	0.08	0.08	0.08
	Total emission	93.54	91.18	90.87	88.84	84.09	78.93	77.45	77.87	79.75	77.17	76.55	76.83	75.45

In figure 6 is shown the percentage distribution of the NH₃ emission on stable, in storage, spreading of manure in field and deposit on grass. The main part of the reduced ammonia emission has taken place in connection to spreading of manure in fields, due to changes in manure practice. There has been a reduction in relation to storage as a result of an improved covering of slurry tanks. From 1990 to 2002 the emission related to manure management in stable is increased from 37% to 46%. In future, the possibilities for ammonia reduction will properly be focused on measurements in stables.

It has to be mentioned that the emission from manure deposit by grassing animal are included in the emission from agricultural soils (NRF – 4.D).

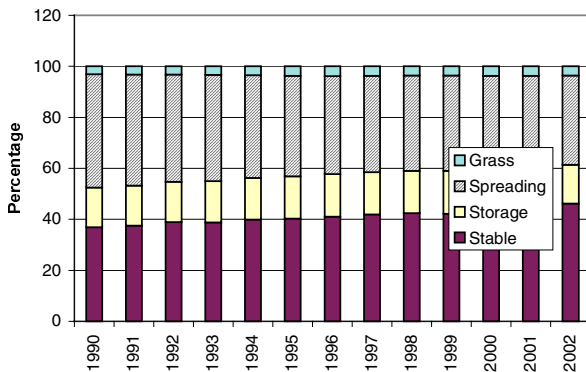


Figure 6 The percentage distribution of the NH₃ emission in the agricultural production 1990 - 2002

6.3 NH₃ emission from Agricultural Soils – NRF 4.D

6.3.1 Description

Figure 6 shows the different emission sources from agricultural soils. In accordance to the reporting in NFR tables. The majority of the ammonia emission from agricultural soils originates from crops, which in 2002 correspond to 60%. Another 24% is related to use of synthetic fertiliser and the remaining part comes from nitrogen deposit by grassing animals and from ammonia treated straw used for feeding.

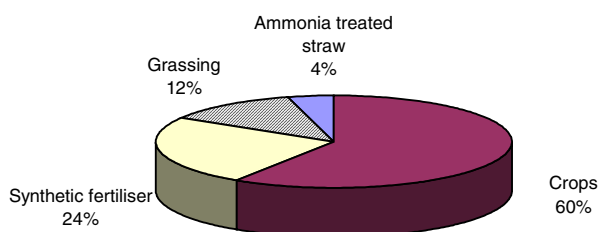


Figure 7 Ammonia emissions from agricultural soils 2002

6.3.2 Methodological issues

A more detailed description of both the activity data and the emission factors are given in annex 6.2.

6.3.2.1 Activity data

At present the farmed area covers 62% of the total surface area in Denmark. The last decades the farmed area has decreased and this development is expected to continue and replaced by forest, semi-natural areas, roads and buildings. Information of farmed area and cultivation of different crop type are collected by Statistics Denmark. Data concerning the organic farming is given from the Danish Plant Directorate.

The amount of nitrogen used in fertiliser is based on information from the Danish Environmental Protection Agency. The use of fertiliser has decreased considerably – nearly half the consumption compared to 1990.

Table 6 Activity data used to estimate the NH₃ emission from agricultural soils

NFR 4.D	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Activity data														
Cultivated area	1000 ha	2 788	2 770	2 756	2 739	2 691	2 726	2 716	2 688	2 672	2 644	2 647	2 676	2 666
- conventional	1000 ha	2 777	2 753	2 738	2 719	2 671	2 688	2 667	2 629	2 580	2 511	2 490	2 509	2 495
- organic	1000 ha	11	17	18	20	21	38	49	59	92	134	157	167	171
N in fertiliser	M kg N	400	395	370	333	326	316	291	288	283	263	257	234	211
N deposit, grass	M kg N	34	35	35	36	35	36	36	35	35	34	34	34	33
NH ₃ , straw	M kg N	13	11	10	10	10	8	6	6	5	3	3	2	1

6.3.2.2 Implied emission factor

In table 7 are given the implied emission factors used in the Danish emission inventor from 1990 to 2002. In calculation of emission from crops distinguish between crop type and conventional contra organic farming. The implied emission factor express the total emission divided by the total cultivated area, which decrease from 1990 to 2002 due to growth in the organic area and set-a side area.

The implied emission factor used to estimate the emission from fertiliser depending on consumption and type of fertiliser. It is nearly the same for all years. The implied emission factor in relation to grassing animal and ammonia used for straw treatment is unaltered.

Table 7 Implied emission factor used to estimate the NH₃ emission from agricultural soils

NFR 4.D	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Source														
Crops	Kg NH ₃ per hectare	5.7	5.7	5.7	5.2	5.2	5.2	5.2	5.3	5.3	5.2	5.1	5.1	5.1
Fertiliser	% of total N	2.2	2.1	2.1	2.3	2.4	2.4	2.3	2.1	2.2	2.2	2.2	2.2	2.2
N grass	% of total N	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
NH ₃ , straw	% of total NH ₃ -N	65	65	65	65	65	65	65	65	65	65	65	65	65

6.3.3 Time-series

From 1990 to 2002 the ammonia emission from agricultural soils are decrease from 39 Gg NH₃ to 23 Gg NH₃, which correspond to a 42% reduction. Especially a considerably increase in use of fertiliser and ammonia used to straw treatment has been important for this development.

As mentioned, the last decades struggle to reduce the nitrogen leaching action plans has been initiated. This focusing on environmental benefits in the agricultural production has lead to an improvement of utilisation of nitrogen in manure. A consequence of this development the use of fertiliser and then also the NH₃ emission has been reduced essentially.

Table 8 Emission of NH₃ from Agricultural Soils from 1990 - 2002

NFR 4.D	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
						<u>Gg NH₃</u>							
<u>Agricultural Soils</u>													
Crops	15.80	15.68	15.59	14.35	13.97	14.09	14.15	14.33	14.18	13.68	13.56	13.63	13.51
Use of fertiliser	10.54	10.25	9.57	9.21	9.56	9.25	8.08	7.51	7.58	7.04	6.79	6.26	5.59
N deposit on grass	2.94	3.00	3.01	3.06	2.99	3.04	3.06	2.97	2.96	2.88	2.88	2.94	2.81
NH ₃ treated straw	10.21	8.66	7.69	7.59	8.12	6.65	5.07	4.49	3.71	2.08	2.47	1.62	0.94
Emission, total	39.48	37.60	35.86	34.20	34.64	33.03	30.37	29.30	28.43	25.68	25.70	24.44	22.85

6.4 PM emission from stables – NRF 4.B

6.4.1 Description

Recently, there has been an increasing interest to evaluate the particulate emission from the agricultural sector. Investigations have shown that farmers as well as the livestock increases the chance of developing lung- and respiratory related diseases by this particulate emission (Hartung og Sedorf. 1999) since the particles are able to carry bacteria, viruses and other organic compounds.

In 2002 the PM emission from stables given in TSP is estimated to 16653 Mg. Of this 75% is related to the production of swine. The emission from poultry and cattle contribute with 15% and 10%, respectively.

Present, only the emission from 2000 to 2002 is given in NRF. The emissions for the previous year are estimated and will be implemented in the next EMEP-reporting.

6.4.2 Methodological issues

The calculation of this emission inventory is based on the CEPMEIP database established by TNO (<http://www.air.sk/tno/cepmeip/>) and an investigation of PM emission in North European stables (Takai et al. 1998). Due to considerable uncertainties and lack of data this inventory only includes emission from stables. The PM emission from handling of fertiliser and crops in the fields are not taken into account.

The particle emission includes primary particles in the form of dust from stables. Three main types of stables, cattle-, pigs- and poultry stable are included in this inventory. Furthermore poultry is divided into two categories – “poultry, chickens” and “poultry, other”.

6.4.2.1 Activity data

The number of animals is based on Statistics Denmark, Agricultural Statistic (www.dst.dk).

Table 9 Number of animal 1990 – 2002(NRF)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
		<u>1000 head</u>												
NRF	<u>Animal category</u>													
4B 1a	Dairy cattle	753	742	712	714	700	702	701	670	669	640	636	623	610
4B 1b	Non-dairy cattle	1 486	1 480	1 478	1 481	1 405	1 388	1 393	1 334	1 308	1 247	1 232	1 284	1 187
4B 8	Pigs	9 497	9 783	10 455	11 568	10 923	11 084	10 842	11 383	12 095	11 626	11 922	12 608	12 732
4B 9	<u>Poultry</u>													
	Hens + Broilers ¹	15 498	15 086	18 259	18 916	18 954	18 673	19 224	18 156	18 023	19 968	20 982	20 347	19 734
	Other poultry ²	750	846	782	982	897	946	663	838	651	1 042	849	889	846

¹Includes Laying hens, chicken for breeding and cocks.

²Turkey, ducks and geese.

³Non-dairy includes heifer, bulls, calves and suckling cattle.

⁴Includes sows and fattening pigs (piglets and slaughtering pigs)

6.4.2.2 Implied emission factor

In Takai *et al.* (1998), dust emission from stables is estimated as "Inhalable dust". This is defined as particles that can be transported into the body by the respiratory system. Approximately, "inhalable dust" can be equalised with TSP (Hinz, T. 2002 and ISO/CEN. 1993).

The emission factor for cattle, pigs and "poultry, chickens" is based on Takai, *et al.* (1998) and for "poultry, other" the value from CEPMEIP database has been used. The Danish Institute of Agricultural Science has confirmed that the emission factors used in the inventory are the most reliable estimates. Same emissions factors are used for all years. This mean that changes in the emission alone reflects changes in number of animal.

The emission of PM_{2.5} and PM₁₀ – i.e. particles with a diameter smaller than 2.5 µm and 10 µm. is estimated. The distribution of particle size is based on CEPMEIP database. Here, PM_{2.5} contributes by 10% of TSP and PM₁₀ constitute 45% of TSP. This distribution is in accordance with measurements from an investigation made in Finland on 15 pig stables (Louhekainen *et al.* 1987).

Table 10 Emission factor – PM emission (NRF)

PM Emission from stables	Emission factor		
	TSP	PM₁₀	PM_{2.5}
	g/head/ year		
<u>Animal category</u>			
Cattle	963.6	433.6	96.4
Pigs	972.4	437.6	97.2
Poultry, chickens	105.1	47.3	10.5
Poultry, other poultry	553.1	249.2	55.3

6.4.3 Time-series

In table 11 is shown the emission of PM for each animal category in the period of 1990 to 2002. It is seen that the main part of the emission originates from pig stables. In the period 1990 to 2002 the emission has increased and it is expected to increase further the coming years due to growth in the pig production.

Table 11 PM emission 1990 – 2002(NRF)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
		<u>Mg TSP</u>												
NRF	Category													
4B 1a	Dairy	726	715	686	688	674	677	675	646	645	617	612	601	587
4B 1b	Non-dairy	1 432	1 426	1 424	1 427	1 354	1 337	1 342	1 285	1 261	1 202	1 188	1 237	1 143
4B 8	Pigs	9 235	9 513	10 167	11 249	10 621	10 778	10 542	11 069	11 761	11 305	11 593	12 260	12 381
4B 9	Poultry	2 044	2 054	2 352	2 531	2 488	2 486	2 387	2 372	2 254	2 675	2 675	2 630	2 542
PM, total		13 437	13 707	14 629	15 895	15 138	15 278	14 947	15 372	15 921	15 799	16 067	16 727	16 653

The emission from different types of stable systems can vary considerably (Takai et al. 1998, Klimont et al. 2002). For example, high humidity in pig- and cattle stables with deep litter reduces the dust emission. Therefore the emission from these stable types is smaller than stables with tied-up systems. So far, the method to estimate the particle emission only depends of the number of animals. However, it is necessary to take into account the variation in emission from different stable systems, when data is available.

6.5 Uncertainties

Table 12 shows the estimated uncertainties for different emission source, which is based on expert judgement (Gyldenkærne, pers. comm.). The uncertainties for activity data are relative small because they are based on National statistics and include measures based on a large number of data. NH₃ emission from manure management the uncertainty for activity data and emission factor is estimated to 2% and 20%, respectively. The uncertainty for the emission factor is mainly related to spreading conditions, which are based on estimation.

NH₃ emission related to the agricultural soil the uncertainty for activity data is estimated to 5%. The uncertainty for the emission factor is estimated to 30%, which is especially due to uncertainties for the emission from crops.

The estimation of the particle emission is connected with high uncertainties in the order of several 100%. One reason is that the number of measurements of dust in stables is very limited and that the few existing measurements vary considerably.

Table 12 The estimated uncertainty – activity and emission factor for NH₃ and PM

Emission source	Uncertainty		Quantitative estimation of uncertainty	
	Activity data	Emission factor	Activity data	Emission factor
NFR				
4B NH₃ Manure Management				
Stable	*	*	2%	20%
Storage	*	*		
Spreading	*	**		
4D NH₃ Agricultural Soils			5%	30%
Grazing animal	*	**		
Synthetic fertiliser	*	*		
Crops	*	**		
Ammonia treated straw	*	**		
Burning of straw on field (until 1989)	*	**		
4.B PM Manure Management	*	***	2%	500%

* uncertainty < 20%.

** uncertainty 20-50%

*** uncertainty > 50%

6.6 Quality assurance and quality control (QA/QC)

Present, either a formal QC system or a QA plan has been implemented. To ensure the consistency in the inventory certain time-series has been worked out for both the activity data and emission factor. Considerable variations over the years can reveal miscalculations or changes in methods. These variations are checked and errors have been revised.

Activity data and emission factors are collected and discussed in corporation with specialists and researcher at different institutes and research sections (table 1). As a consequence both the data and methods are evaluated continuously according to the latest knowledge and information.

6.7 Recalculations

The ammonia emission from 1985 to 1989 I NRF now includes emission from field burning of straw. These changes influence the total emission with less than 1%. The minor changes in the NH₃ emission from 1990 to 2000 is due updating of data for sewage sludge and industrial waste used as fertiliser. The 2001 emission is 1.3% higher than previous inventory caused to changes in number of calves, heifer and bulls.

Table 13 Changes in NH₃ emission in the agricultural sector compared to NRF reported last year

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Gg NH₃</u>												
NH₃ emission													
Previous	133.03	128.77	126.72	123.05	118.73	111.96	107.82	107.17	108.17	102.85	102.26	101.27	133.03
Recalculated	133.03	128.78	126.73	123.05	118.74	111.96	107.83	107.17	108.18	102.86	102.24	99.95	133.03
Difference	0.00	0.01	0.01	0.00	0.01	0.00	0.01	0.00	0.01	0.01	0.02	1.32	0.00

In connection to the PM emission there have been some corrections, which have increased the emission up to 20%. In previous inventory the number of swine and poultry were inconstant due to different definitions of subcategories in swine and poultry categories over the years. The number of swine now includes the production of piglets and the numbers of animal now correspond the number given in the census.

Table 14 Changes in NH₃ emission in the agricultural sector compared to NRF reported last year

	2000	2001
	<u>Mg TSP</u>	
PM emission		
Previous	14 191	13 633
Recalculated	16 067	16 727
Difference	1 876	3 094

6.8 Planned improvements

Present, the NH₃ emission from sewage sludge and industrial waste used as fertiliser is registered under NFR category 4.B 13 Manure Management "Other". It is planned to replace this emission source into NFR category 4.B Agricultural Soils. The sewage sludge and industrial waste is applied on fields and therefore more related to this category.

In recent year focus have been on reduction of ammonia emission, and the possibility to implement technical measures - in both stables and storage of manure. A number of investigations to estimate the effects on the emission have been initiated. When data is available it is planned to implement the reduction effect in the emission inventory.

In relation to estimation of PM emission, it is planned to include dust emission from arable farming – i.e. harvesting and field preparation by machines. Inventory from Finland shows that dust emission from arable farming contributes approximately 25% of the total emission from the agricultural sector (Karvosenoja et al., 2001 og Louhekainen et al., 1987b). It shows that the particle emission from this source can be considerably and therefore important to apply in the emission inventory.

The PM emission from stables in 1985 to 1999 will be implemented in NRF for the next reporting.

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7 Recalculations and Improvements

In general considerable work is going on to improve the inventories. Investigations and research carried out in Denmark and abroad produce new results and new findings which are considered and to the extent possible included as the bases for emission estimates and included as data in the inventory databases. Further, the updates of the EMEP/CORINAIR Guidebook and the work in the Task Force on Emission Inventories and its expert groups are followed closely in order to get knowledge to be able to incorporate the best scientific information as the bases for the inventories. The further important references in this regard are the IPCC Guidelines and IPCC Good Practice Guidance.

The implementation of new results in inventories is made in a way so that improvements as far as possible better reflect Danish conditions and circumstances. This is in accordance with good practice. Further, efforts are made to involve as many experts as possible in the reasoning, justification and feasibility of implementation of improvements.

In improving the inventories care is taken to consider implementation of improvements for the whole time-series of inventories, to make it consistent. Such efforts lead to recalculation of previously submitted inventories. This submission includes recalculated inventories for the whole time-series. The reasoning for the recalculations performed is to be found in the sectoral chapters of this report. The text below is on improvements and recalculations in general and further serves as an overview and summary of the text on this item in the sectoral chapters.

Although a formal QA/QC plan has not yet been developed the number and comprehensiveness of QC procedures have been improved considerably. This is especially the case for the energy sector (refer to section 3.2.5) but also for the other sectors QC-procedures are carried out where

- Time-series for each NFR and SNAP source categories are considered and changes are controlled and explained.
- The most recent inventory is compared to inventories for previous years and changes are verified
- Total emissions in NFR categorisation are compared to totals based on SNAP source categories (control of data transfer).

Also QA procedures are carried out, refer e.g. chapter 6 and section 7.4 below.

7.1 Energy

Improvements and updates of the Danish energy statistics are made regularly by the producer of the statistics, the Danish Energy Agency. In a close co-operation with DEA those improvements and updates are reflected in the emission inventory for the energy sector. The Danish energy statistics has for main parts been aggregated to the SNAP categorisation. This includes, however, not energy statistic for fuel consumption data for specific industries. Work on such improvements is going on in discussion with DEA, but results could not be included in this submission. Further, a full update of energy statistics is to take place and is expected to be available as the base for the energy inventory for next submission.

The inventories are still being improved through work to increase the number of large point sources e.g. power plants included in the databases as individual point sources. Such an in-

clusion makes it possible to use plant specific data of emissions etc, available e.g. in Annual Environmental reports from the plant.

Of several QC-procedures in the energy sector to be mentioned here is the comparison made in the reference approach in the reporting of greenhouse gases to UNFCCC. The fuel consumption rates are validated in a comparison between the sectoral approach and the reference approach. For the Danish inventories for the years 1990-2002 fuel consumption rates from the two approaches are within 2,0% difference (refer section 3.2.4). A further QC-procedure to be mentioned is the procedure used for road transport and air traffic where the detailed methodology approach and fuel balance approach are used independently to provide a quality control of the emission estimations. The usage of the fuel balance approach ensures that all fuel for road transport and civil aviation is accounted for in the estimations (refer to section 3.1.4).

Stationary combustion

Recalculation is mainly a result of improvements of emission factors for:

- ◆ Combined Heat and Power (CHP) Plants and for SO₂, NO_x, NMVOC, CO, PM, HM and PAH. Results from a Danish project where emissions were measured on various types of CHP Plants.
- ◆ SO₂, NO_x and HM. Result of consistency check.
- ◆ improvement of activity data for:
- ◆ Some fuel consumption rates. Result of a new estimate for off road machinery.
- ◆ Fuel consumption rate for residential wood combustion. Result from the new energy statistics.
- ◆ addition of PM emissions from refineries for 2001

Further details in section 3.2.5.

Road transport and air traffic

Recalculation is mainly a result of improvements of emission factors for:

- ◆ NO_x, NMVOC, CH₄, CO and PM for diesel used in railway transportation. Result of emission measurements.
- ◆ improvement of activity data for:
- ◆ diesel fuel use in the fishery sector. Result of consultation with DEA and Technological Institute of Denmark
- ◆ diesel fuel use in Agriculture/Forestry/Industry/Household and gardening Result of consultation with DEA and Technological Institute of Denmark
- ◆ improvement of inventory data for:
- ◆ non-exhaust particulate emissions (tyre and brake wear and road abrasion) Result of the new EMEP/CORINAIR guidebook methodology chapter.

Further details in section 3.1.5

7.2 Industry

The inventories have been improved and for the following production activities emissions from the pollutants listed are estimated, which were not included in previous submissions:

Production of:

- container glass: NO_x and CO,

- glass wool: NH_3 , TSP, PM_{10} and $\text{PM}_{2.5}$
- mineral wool: TSP, PM_{10} and $\text{PM}_{2.5}$
- chemical ingredients: NMVOC
- sugar: TSP, PM_{10} and $\text{PM}_{2.5}$
- nitric acid/fertiliser: NH_3 , TSP, PM_{10} and $\text{PM}_{2.5}$
- catalysts/fertiliser: NO_x , NH_3 , TSP, PM_{10} and $\text{PM}_{2.5}$
- pesticides: NMVOC.

The process Flat glass has been removed from the inventory as no production occurs in Denmark - only manufacturing of glazing panes.

The activity data for production of nitric acid and sulphuric acid has been corrected in a dialogue with the company and implementation of this correction has led to corrections in the emissions.

7.3 Solvents

Work is going on to improve the emission estimates further. No results of the work have been included in this submission. (Refer to section 5.1 for further details).

7.4 Agriculture

A QA procedure activity is carried out in this sector since data on activity and emissions are collected, evaluated and discussed in cooperation with research institutes in the agricultural sector and the administration. The institutes involved are Statistics Denmark, the Danish Institute of Agricultural Sciences, the Danish Agricultural Advisory Centre, Danish Environmental Protection Agency and the Danish Plant Directorate. This procedure implies that both the data and the methods are evaluated continuously according to the latest knowledge and information (refer to further details in sections 6.13 and 6.6).

Recalculations are the result of:

- ◆ for NH_3 (minor changes)
- ◆ including emission from the field burning of straw for years 1985-1989
- ◆ updating of activity data for sewage sludge and industrial waste used as fertiliser for the years 1990-2000.
- ◆ updating of livestock data for calves, heifer and bulls for year 2001.
- ◆ for PM
- ◆ consistency corrections in time-series of livestock data for swine and poultry.

Refer to section 6.7 for further details.

Annex 1

Complete set of Nomenclature for Reporting Format (NRF) files

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1980 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																			Additional reporting		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					OTHER (4)		
		Aldrin	Chlordane	Chlordane	Dieldrin	Endrin	Hepachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	g I-Toq	Diox	pyrene benzo(a)	fluoranthene benzo(b)	PAH fluoranthene benzo(k)	pyrene (1,2,3-cd) Indeno	Total 1-4	HCB	PCP	SCCP
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg		
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		

1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1	1 B 1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a	1 B 2 a Oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a v	1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a vi	1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 b	1 B 2 b Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 c	1 B 2 c Venting and flaring	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A	2 A MINERAL PRODUCTS (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 1	2 A 1 Cement Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

2 A 2	2 A 2 Lime Production																						0.00	NE	NE	NE	
2 A 3	2 A 3 Limestone and Dolomite Use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 A 4	2 A 4 Soda Ash Production and use																							0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 A 6	2 A 6 Road Paving with Asphalt	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 B	2 B CHEMICAL INDUSTRY *																							0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 B 2	2 B 2 Nitric Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 B 3	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 B 4	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 B 5	2 B 5 Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 C	2 C METAL PRODUCTION																							0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a) *																							0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 D 2	2 D 2 Food and Drink	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
2 G	2 G OTHER (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
3 A	3 A PAINT APPLICATION																							0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B	4 B MANURE MANAGEMENT (b) *																							0.00	NE	NE	NE
4 B 1	4 B 1 Cattle	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 1 a	4 B 1 a Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 1 b	4 B 1 b Non-Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 2	4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 3	4 B 3 Sheep	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 4	4 B 4 Goats	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 5	4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
4 B 6	4 B 6 Horses	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	

4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 D	4 D AGRICULTURAL SOILS *		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO	0.00	0.00

Memo Items																						
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NO

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(k)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I to the Protocol as a substance for elimination.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1980 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting					
				Main Pollutants					Particulate matter			Priority metals		Other metals					
				NOx Gg NO ₂	CO Gg	NM VOC Gg	SOx Gg SO ₂	NH ₃ Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NE	NE	NE	273,98	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		NE	NE	NE	9,52	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	NE	NE	NE	81,27	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		NE	NE	NE	1.17	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		NE	NE	NE	1.64	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		NE	NE	NE	4.17	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		NE	NE	NE	1.06	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		NE	NE	NE	4.44	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NE	NE	NE	1.76	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		NE	NE	NE	21.16	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		NE	NE	NE	33.91	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c i		1 A 4 c i Stationary		NE	NE	NE		11,70	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NE	NE	NE		2,56	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c iii		1 A 4 c iii National Fishing		NE	NE	NE		3,43	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NE	NE	NE		0,07	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NE	NE	NE	NA		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NE	NE	NE	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NE	NE	NE	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2	(a)	1 B 2 Oil and natural gas	A	NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a	(a)	1 B 2 a Oil	A	NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NE	NE	NE	IE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NE	NE	NE	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NE	NE	NE	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a vi	(a)	1 B 2 a vi Other		NE	NE	NE	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 b	(a)	1 B 2 b Natural gas		NE	NE	NE	NA		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 c	(a)	1 B 2 c Venting and flaring		NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 1	(a)	2 A 1 Cement Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is nonavailable. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1	(a)	4 B 1 Cattle		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 a	(a)	4 B 1 a Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 2	(a)	4 B 2 Buffalo		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 3	(a)	4 B 3 Sheep		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 4	(a)	4 B 4 Goats		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 5	(a)	4 B 5 Camels and Llamas		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 6	(a)	4 B 6 Horses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 7	(a)	4 B 7 Mules and Asses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 8	(a)	4 B 8 Swine		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 9	(a)	4 B 9 Poultry		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 13	(a)	4 B 13 Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 C	(a)	4 C RICE CULTIVATION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

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HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
			Main Pollutants					Particulate matter			Priority metals		Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 D 1	(a)	4 D 1 Direct Soil Emission		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NE	NE	NE	0.34	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		0.00	0.00	0.00	452.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		NE	NE	NE	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NE	NE	NE	0.09	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		NE	NE	NE	21.54	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SO₂.

(b) Including Product handling.

(c) Including NH₃ from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

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TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1981 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																			Additional reporting			
		ANNEX I (1)									ANNEX II (2)				ANNEX III (3)						OTHER (4)			
		Aldrin	Chlordane	Chlordane	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	g I-Teq	DDOX	pyrene	fluoranthene	benzo(b)fluoranthene	fluoranthene benzo(k)	pyrene (1,2,3-cd)	Indeno	Total 1-4	HKCB	PCP
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2	1 A 2 Manufacturing industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE	NE	NE

1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 b	1 A 5 b Other, Mobile (including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1	1 B 1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a	1 B 2 a Oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a v	1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a vi	1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 b	1 B 2 b Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 c	1 B 2 c Venting and flaring	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A	2 A MINERAL PRODUCTS (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

2 A 1	2 A 1 Cement Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 2	2 A 2 Lime Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 3	2 A 3 Limestone and Dolomite Use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 4	2 A 4 Soda Ash Production and use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 6	2 A 6 Road Paving with Asphalt		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B	2 B CHEMICAL INDUSTRY	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 2	2 B 2 Nitric Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 5	2 B 5 Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 C	2 C METAL PRODUCTION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 2	2 D 2 Food and Drink		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B	4 B MANURE MANAGEMENT (b)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1981 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB-AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting					
				Main Pollutants					Particulate matter			Priority metals		Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se
Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg		
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NE	NE	NE	208,40	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		NE	NE	NE	15,25	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	NE	NE	NE	66,20	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		NE	NE	NE	1,10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		NE	NE	NE	1,54	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		NE	NE	NE	3,91	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		NE	NE	NE	1,28	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		NE	NE	NE	3,86	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NE	NE	NE	1,96	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		NE	NE	NE	18,08	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		NE	NE	NE	29,70	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c i		1 A 4 c i Stationary		NE	NE	NE	12.63	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NE	NE	NE	2.56	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c iii		1 A 4 c iii National Fishing		NE	NE	NE	3.12	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NE	NE	NE	0.16	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2	(a)	1 B 2 Oil and natural gas	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a	(a)	1 B 2 a Oil	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a vi	(a)	1 B 2 a vi Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 b	(a)	1 B 2 b Natural gas		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 c	(a)	1 B 2 c Venting and flaring		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 1	(a)	2 A 1 Cement Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1	(a)	4 B 1 Cattle		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 a	(a)	4 B 1 a Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 2	(a)	4 B 2 Buffalo		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 3	(a)	4 B 3 Sheep		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 4	(a)	4 B 4 Goats		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 5	(a)	4 B 5 Camels and Llamas		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 6	(a)	4 B 6 Horses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 7	(a)	4 B 7 Mules and Asses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 8	(a)	4 B 8 Swine		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 9	(a)	4 B 9 Poultry		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 13	(a)	4 B 13 Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 C	(a)	4 C RICE CULTIVATION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
			Main Pollutants					Particulate matter			Priority metals		Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 D 1	(a)	4 D 1 Direct Soil Emission		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NE	NE	NE	0.68	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		0.00	0.00	0.00	370.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		NE	NE	NE	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NE	NE	NE	0.09	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		NE	NE	NE	25.43	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1982 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																				Additional reporting	
		ANNEX I (1)										ANNEX II (2)					ANNEX III (3)					OTHER (4)	
		Aldrin	Chlordane	Chlordane	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	g I-Teq	DDOX	pyrene benzo(a) fluoranthene	benzo(b) fluoranthene benzo(k)	pyrene (1,2,3-cd) Indeno	Total 1-4	HKCB	PCP	SCCP	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE		

1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 c	1 A 3 c Railways		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 d ii	1 A 3 d ii National Navigation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e i	1 A 3 e i Pipeline compressors		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 a	1 A 4 a Commercial / Institutional		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b	1 A 4 b Residential	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b i	1 A 4 b i Residential plants		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c i	1 A 4 c i Stationary		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c iii	1 A 4 c iii National Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 b	1 A 5 b Other, Mobile (including military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1	1 B 1 Fugitive Emissions from Solid Fuels	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 a	1 B 1 a Coal Mining and Handling		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2	1 B 2 Oil and natural gas	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a	1 B 2 a Oil		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a v	1 B 2 a v Distribution of oil products		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a vi	1 B 2 a vi Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 b	1 B 2 b Natural gas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 c	1 B 2 c Venting and flaring		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A	2 A MINERAL PRODUCTS (a)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

2 A 1	2 A 1 Cement Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A 2	2 A 2 Lime Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A 3	2 A 3 Limestone and Dolomite Use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A 4	2 A 4 Soda Ash Production and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A 6	2 A 6 Road Paving with Asphalt	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 B	2 B CHEMICAL INDUSTRY	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 B 2	2 B 2 Nitric Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 B 3	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 B 4	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 B 5	2 B 5 Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 C	2 C METAL PRODUCTION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 D 2	2 D 2 Food and Drink	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 G	2 G OTHER (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
3 A	3 A PAINT APPLICATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B	4 B MANURE MANAGEMENT (b)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 1	4 B 1 Cattle	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 1 a	4 B 1 a Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 1 b	4 B 1 b Non-Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 2	4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 3	4 B 3 Sheep	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 4	4 B 4 Goats	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE

4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D	4 D AGRICULTURAL SOILS		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	0.00

Memo Items																								
1 a 3 a 1 (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 a 1 (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 d 1	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NO	NE	NE	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(k)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I to the Protocol as a substance for elimination.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1982 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting					
				Main Pollutants					Particulate matter			Priority metals		Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se
Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg		
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NE	NE	NE	229,36	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 1 b	(a)	1 A 1 b Petroleum refining		NE	NE	NE	14,08	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	NE	NE	NE	59,18	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2 a	(a)	1 A 2 a Iron and Steel		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
1 A 3 b	(a)	1 A 3 b Road Transportation	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		NE	NE	NE	1.19	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		NE	NE	NE	1.72	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		NE	NE	NE	4.36	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		NE	NE	NE	1.40	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		NE	NE	NE	5.59	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NE	NE	NE	2.05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		NE	NE	NE	17.11	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		NE	NE	NE	28.67	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c i		1 A 4 c i Stationary		NE	NE	NE	7.07	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NE	NE	NE	2.56	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c iii		1 A 4 c iii National Fishing		NE	NE	NE	3.18	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NE	NE	NE	0.40	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2	(a)	1 B 2 Oil and natural gas	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a	(a)	1 B 2 a Oil	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a vi	(a)	1 B 2 a vi Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 b	(a)	1 B 2 b Natural gas		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 c	(a)	1 B 2 c Venting and flaring		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 1	(a)	2 A 1 Cement Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1	(a)	4 B 1 Cattle		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 a	(a)	4 B 1 a Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 2	(a)	4 B 2 Buffalo		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 3	(a)	4 B 3 Sheep		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 4	(a)	4 B 4 Goats		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 5	(a)	4 B 5 Camels and Llamas		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 6	(a)	4 B 6 Horses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 7	(a)	4 B 7 Mules and Asses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 8	(a)	4 B 8 Swine		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 9	(a)	4 B 9 Poultry		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 13	(a)	4 B 13 Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 C	(a)	4 C RICE CULTIVATION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
			Main Pollutants					Particulate matter			Priority metals		Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 D 1	(a)	4 D 1 Direct Soil Emission		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NE	NE	NE	0.85	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		0.00	0.00	0.00	378.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		NE	NE	NE	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NE	NE	NE	0.09	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		NE	NE	NE	24.26	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1983 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																			Additional reporting		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					OTHER (4)		
		kg	Aldrin kg	Chlordane kg	Chlordane kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	g I-Teq DDOX	PAH				Total 1-4 kg	HCB kg	PCP kg	SCCP kg
																pyrene benzo(a) fluoranthene Mg	benzo(b) fluoranthene Mg	fluoranthene benzo(k) Mg	pyrene (1,2,3-cd) Indeno Mg				
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	

2 A 1	2 A 1 Cement Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 2	2 A 2 Lime Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 3	2 A 3 Limestone and Dolomite Use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 4	2 A 4 Soda Ash Production and use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 6	2 A 6 Road Paving with Asphalt		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B	2 B CHEMICAL INDUSTRY	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 2	2 B 2 Nitric Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 5	2 B 5 Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 C	2 C METAL PRODUCTION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 2	2 D 2 Food and Drink		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B	4 B MANURE MANAGEMENT (b)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D	4 D AGRICULTURAL SOILS		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	0.00

Memo Items																									
1 a 3 a 1 (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 a 1 (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 d 1	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NO	NE	NE	NO

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(k)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I to the Protocol as a substance for elimination.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1983 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NE	NE	NE	181,99	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		NE	NE	NE	14,90	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	NE	NE	NE	56,44	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		NE	NE	NE	1,30	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		NE	NE	NE	1,90	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		NE	NE	NE	4,84	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		NE	NE	NE	1,25	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		NE	NE	NE	4,51	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NE	NE	NE	2,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		NE	NE	NE	14,56	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		NE	NE	NE	24,98	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO _x	Gg	Gg	Gg SO _x	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c i		1 A 4 c i Stationary		NE	NE	NE	7.68	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NE	NE	NE	2.55	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c iii		1 A 4 c iii National Fishing		NE	NE	NE	3.27	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NE	NE	NE	0.22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2	(a)	1 B 2 Oil and natural gas	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a	(a)	1 B 2 a Oil	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a vi	(a)	1 B 2 a vi Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 b	(a)	1 B 2 b Natural gas		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 c	(a)	1 B 2 c Venting and flaring		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 1	(a)	2 A 1 Cement Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1	(a)	4 B 1 Cattle		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 a	(a)	4 B 1 a Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 2	(a)	4 B 2 Buffalo		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 3	(a)	4 B 3 Sheep		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 4	(a)	4 B 4 Goats		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 5	(a)	4 B 5 Camels and Llamas		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 6	(a)	4 B 6 Horses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 7	(a)	4 B 7 Mules and Asses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 8	(a)	4 B 8 Swine		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 9	(a)	4 B 9 Poultry		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 13	(a)	4 B 13 Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 C	(a)	4 C RICE CULTIVATION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

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HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

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NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
			Main Pollutants					Particulate matter			Priority metals		Other metals						
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 D 1	(a)	4 D 1 Direct Soil Emission		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NE	NE	NE		0.55	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		0.00	0.00	0.00	322.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		NE	NE	NE		0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NE	NE	NE		0.09	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		NE	NE	NE		21.11	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other		NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)		NE	NE	NE			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

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TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1984 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																					Additional reporting	
		ANNEX I (1)											ANNEX II (2)					ANNEX III (3)					OTHER (4)	
		kg	Alldrin kg	Chlordane kg	Chlordane kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexachloro-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	g l-Teq Diox	PAH				Total 1-4 kg	HCB kg	PCP kg	SCCP kg	
																pyrene fluoranthene benzo(a) Mg	benzo(b) fluoranthene Mg	fluoranthene benzo(k) Mg	pyrene (1,2,3-cd) Indeno Mg					
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	

1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 A 5 b	1 A 5 b Other, Mobile (including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 1	1 B 1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 a	1 B 2 a Oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 a v	1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 a vi	1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 b	1 B 2 b Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 B 2 c	1 B 2 c Venting and flaring	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
2 A	2 A MINERAL PRODUCTS (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE

2 A 1	2 A 1 Cement Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 2	2 A 2 Lime Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 3	2 A 3 Limestone and Dolomite Use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 4	2 A 4 Soda Ash Production and use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 6	2 A 6 Road Paving with Asphalt		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B	2 B CHEMICAL INDUSTRY	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 2	2 B 2 Nitric Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 5	2 B 5 Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 C	2 C METAL PRODUCTION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 2	2 D 2 Food and Drink		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B	4 B MANURE MANAGEMENT (b)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D	4 D AGRICULTURAL SOILS		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	0.00

<i>Memo Items</i>																									
1 a 3 a 1 (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 a 1 (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 d 1	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NO	NE	NE	NO

- (a) Including Handling;
(b) Including NH₃ from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(k)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I to the Protocol as a substance for elimination.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1984 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting									Additional reporting					
				Main Pollutants			Particulate matter			Priority metals			Other metals					
		NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
		Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production	NE	NE	NE	161,10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining	NE	NE	NE	14,59	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	NE	NE	NE	59,60	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel	NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals	NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)	NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)	NE	NE	NE	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		NE	NE	NE	1,55	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		NE	NE	NE	2,35	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		NE	NE	NE	5,99	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		NE	NE	NE	1,21	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		NE	NE	NE	3,51	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NE	NE	NE	1,63	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		NE	NE	NE	14,84	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		NE	NE	NE	24,12	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c i		1 A 4 c i Stationary		NE	NE	NE	7,30	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NE	NE	NE	2,55	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 4 c iii		1 A 4 c iii National Fishing		NE	NE	NE	3,90	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NE	NE	NE	0,42	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2	(a)	1 B 2 Oil and natural gas	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a	(a)	1 B 2 a Oil	A	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 a vi	(a)	1 B 2 a vi Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 b	(a)	1 B 2 b Natural gas		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
1 B 2 c	(a)	1 B 2 c Venting and flaring		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 1	(a)	2 A 1 Cement Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use		NE	NE	NE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION		NE	NE	NE	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1	(a)	4 B 1 Cattle		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 a	(a)	4 B 1 a Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 2	(a)	4 B 2 Buffalo		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 3	(a)	4 B 3 Sheep		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 4	(a)	4 B 4 Goats		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 5	(a)	4 B 5 Camels and Llamas		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 6	(a)	4 B 6 Horses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 7	(a)	4 B 7 Mules and Asses		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 8	(a)	4 B 8 Swine		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 9	(a)	4 B 9 Poultry		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 B 13	(a)	4 B 13 Other		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
4 C	(a)	4 C RICE CULTIVATION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
			Main Pollutants					Particulate matter			Priority metals		Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A	NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 D 1	(a)	4 D 1 Direct Soil Emission		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NE	NE	NE	0.84	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NE	NE	NE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		0.00	0.00	0.00	305.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		NE	NE	NE	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NE	NE	NE	0.09	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		NE	NE	NE	21.94	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)		NE	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1985 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																				Additional reporting		
		ANNEX I (1)										ANNEX II (2)					ANNEX III (3)					OTHER (4)		
		Aldrin	Chlordane	Chlordane	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	g l-Teq	DDOX	PAH			Total 1-4	HKCB	PCP	SCCP		
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g l-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	

1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 A 5 b	1 A 5 b Other, Mobile (including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1	1 B 1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a	1 B 2 a Oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a v	1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 a vi	1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 b	1 B 2 b Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
1 B 2 c	1 B 2 c Venting and flaring	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A	2 A MINERAL PRODUCTS (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

2 A 1	2 A 1 Cement Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 2	2 A 2 Lime Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 3	2 A 3 Limestone and Dolomite Use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 4	2 A 4 Soda Ash Production and use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 6	2 A 6 Road Paving with Asphalt		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B	2 B CHEMICAL INDUSTRY	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 2	2 B 2 Nitric Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 5	2 B 5 Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 C	2 C METAL PRODUCTION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 2	2 D 2 Food and Drink		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B	4 B MANURE MANAGEMENT (b)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D	4 D AGRICULTURAL SOILS		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	0.00

Memo Items																												
1 a 3 a 1 (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 a 3 a 1 (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
1 a 3 d 1	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE	
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NO	NE	NE	NO	

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(k)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I to the Protocol as a substance for elimination.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1985 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants				Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		119,45	6,91	0,93	205,58	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,82	0,31	0,10	8,98	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries						NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	22,81	15,76	3,99	49,71	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		6,92	1,56		1,56		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,32	1,02	0,18	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,58	0,15	0,02	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		53,83	540,48	47,28	1,41	0,05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		7,43	17,02	1,78	3,28	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		28,24	7,55	3,14	6,93	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,81	3,23	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	25,45	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		6,02	1,10	0,39	1,15	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		8,32	8,18	4,47	4,25	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		2,51	0,84	0,10	13,84	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		6,82	103,06	9,89	26,02	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,66	2,21	1,34	6,63	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c iii		1 A 4 c iii National Fishing		22,15	22,22	4,92	4,05	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		11,76	1,53	0,48			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		2,30	4,15	0,61	0,34	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	42,50	NA	NA	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		3,31	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		4,20	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA		0,03	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 c	(a)	1 B 2 c Venting and flaring																		
				1,70	1,10	0,48		NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	39.11				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	0.82	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	18.54	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	27.25	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	13.30	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.08	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.17	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	52.85	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	3.18	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.94	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
			Main Pollutants					Particulate matter			Priority metals			Other metals					
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO		1,49	NO		35,29	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES			0,99	198,36	13,41		0,50	0,31	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		306,94	1036,42	194,14	335,52	138,46	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,61	0,45	0,09	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,34	0,68	0,16	0,04		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		36,14	3,07	0,97	20,68		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1986 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLR TAP		Yearly minimum reporting																					Additional reporting	
		ANNEX I (1)										ANNEX II (2)					ANNEX III (3)						OTHER (4)	
		Aldrin	Chlordane	Chlordane	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	g I-Teq	Diox	PAH				Total 1-4	HCB	PCP	SCCP	
																pyrene	fluoranthene	benzo(b)	fluoranthene benzo(k)					pyrene (1,2,3-cd)
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg	kg			
I A 1 a	I A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 1 b	I A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 1 c	I A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2	I A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2 a	I A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2 b	I A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2 c	I A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2 d	I A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2 e	I A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 2 f	I A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 a ii (i)	I A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 a ii (ii)	I A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b	I A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b i	I A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b ii	I A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b iii	I A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b iv	I A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b v	I A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		
I A 3 b vi	I A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	NE	NE		

2 A 1	2 A 1 Cement Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 2	2 A 2 Lime Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 3	2 A 3 Limestone and Dolomite Use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 4	2 A 4 Soda Ash Production and use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 5	2 A 5 Asphalt Roofing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 6	2 A 6 Road Paving with Asphalt		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B	2 B CHEMICAL INDUSTRY	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 2	2 B 2 Nitric Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 B 5	2 B 5 Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 C	2 C METAL PRODUCTION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D	2 D OTHER PRODUCTION (a)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 1	2 D 1 Pulp and Paper		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 D 2	2 D 2 Food and Drink		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B	4 B MANURE MANAGEMENT (b)	*	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NE	NE	NE

4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D	4 D AGRICULTURAL SOILS		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO	0.00	0.00

<i>Memo Items</i>																									
1 a 3 a 1 (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 a 1 (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
1 a 3 d 1	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0.00	NE	NE	NE
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NO	NE	NE	NO

- (a) Including Handling;
(b) Including NH₃ from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(k)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I to the Protocol as a substance for elimination.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1986 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants				Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		131,04	7,25	1,02	188,38	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		3,15	0,34	0,11	9,56	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries						NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	23,16	16,41	4,10	33,16	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,96	1,79		1,79		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,33	1,03	0,18	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,62	0,16	0,02	0,00		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		54,51	517,51	46,53	0,93	0,05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		8,64	18,88	1,99	2,34	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		31,16	8,30	3,47	4,59	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,05	9,30	2,96	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	25,92	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		6,06	1,10	0,40	0,70	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		9,54	8,33	4,52	5,52	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		2,50	0,76	0,20	8,44	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		6,81	105,94	10,09	16,91	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,77	2,47	1,36	5,66	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c iii		1 A 4 c iii National Fishing		22,15	22,22	4,92	2,43	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		13,19	1,73	0,55	1,39	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		1,99	3,07	0,49	0,21	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	40,78	NA	NA	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		3,38	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		4,21	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA		0,05	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 c	(a)	1 B 2 c Venting and flaring																		
				2,00	1,30	0,57		NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	37.23				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	1.73	NO			NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	17.87	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	26.55	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	12.43	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.15	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	53.51	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	3.30	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	5.58	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
			Main Pollutants					Particulate matter			Priority metals			Other metals					
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO		1,48	NO		36,01	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES			0,98	195,61	13,22	0,49	0,27	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		327,85	1014,92	192,99	282,51	138,98	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,63	0,50	0,10	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,68	0,72	0,17	0,05		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		42,06	3,58	1,13	24,63	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1987 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																			
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg
Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	pyrene benzo(a) fluoranthene	benzo(b) fluoranthene	fluoranthene benzo(k)	pyrene (1,2,3,4-d) indeno	Total 1-4	HCB			
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 3 a (i)	1 A 3 a (i) Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 3 a (ii)	1 A 3 a (ii) Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE

1 B 2 a	1 B 2 a Oil																			0,00	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport																			0,00	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage																			0,00	NE
1 B 2 a v	1 B 2 a v Distribution of oil products																			0,00	NE
1 B 2 a vi	1 B 2 a vi Other																			0,00	NE
1 B 2 b	1 B 2 b Natural gas																			0,00	NE
1 B 2 c	1 B 2 c Venting and flaring																			0,00	NE
2 A	2 A MINERAL PRODUCTS (a)																			0,00	NE
2 A 1	2 A 1 Cement Production																			0,00	NE
2 A 2	2 A 2 Lime Production																			0,00	NE
2 A 3	2 A 3 Limestone and Dolomite Use																			0,00	NE
2 A 4	2 A 4 Soda Ash Production and use																			0,00	NE
2 A 5	2 A 5 Asphalt Roofing																			0,00	NE
2 A 6	2 A 6 Road Paving with Asphalt																			0,00	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																			0,00	NE
2 B	2 B CHEMICAL INDUSTRY																			0,00	NE
2 B 1	2 B 1 Ammonia Production																			0,00	NE
2 B 2	2 B 2 Nitric Acid Production																			0,00	NE
2 B 3	2 B 3 Adipic Acid Production																			0,00	NE
2 B 4	2 B 4 Carbide Production																			0,00	NE
2 B 5	2 B 5 Other (Please specify in a covering note)																			0,00	NE
2 C	2 C METAL PRODUCTION																			0,00	NE
2 D	2 D OTHER PRODUCTION (a)																			0,00	NE
2 D 1	2 D 1 Pulp and Paper																			0,00	NE
2 D 2	2 D 2 Food and Drink																			0,00	NE

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	NO

<i>Memo Items</i>																								
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	0,00	NE
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NO	NE

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I.

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1987 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting					
				Main Pollutants				Particulate matter			Priority metals			Other metals					
				NOx Gg NO ₂	CO Gg	NMVOG Gg	SOx Gg SO ₂	NH ₃ Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		126,69	7,25	1,01	166,24	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		3,70	0,39	0,13	10,11	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries						NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	22,53	17,39	4,30	27,36	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,57	1,70		1,70		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,32	0,87	0,15	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,67	0,18	0,02	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		54,91	497,15	46,09	0,94	0,05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		9,09	20,16	2,12	2,45	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		30,23	8,06	3,36	4,46	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,05	9,10	2,83	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	25,86	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		5,39	0,98	0,35	0,62	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		10,11	8,41	4,55	6,14	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,97	1,01	0,20	6,07	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		6,36	112,50	10,49	14,22	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,69	2,46	1,36	5,10	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c iii		1 A 4 c iii National Fishing		22,15	22,22	4,92	2,43	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		10,86	1,46	0,48	1,25	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	1,61	1,30	0,19	0,11	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	40,38	NA	NA	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	3,45	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	4,21	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,07	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,46	0,95	0,41		NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	35.35				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.63	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	17.21	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	25.17	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	11.64	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.11	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.14	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	51.06	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	3.39	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	5.98	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
			Main Pollutants					Particulate matter			Priority metals			Other metals					
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,46	NO	36,72	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES			1,14	227,07	15,35	0,57	0,25	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		318,75	1031,62	192,99	249,78	135,55	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,65	0,52	0,11	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,17	0,77	0,19	0,05		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		61,84	5,26	1,65	39,74		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: **DK** (as ISO2 code)
DATE: **11.02.2004** (as DD.MM.YYYY)
YEAR: **1988** (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg
Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Hepachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	pyrene benzo(a) fluoranthene	benzo(b)	fluoranthene benzo(k)	pyrene (1,2,3-cd) Indeno	Total 1-4	kg	HCB	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 a (i)	1 A 3 a (i) Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 a (ii)	1 A 3 a (ii) Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	0,00	NE

1 B 2 a	1 B 2 a Oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2 a i	1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2 a v	1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2 a vi	1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2 b	1 B 2 b Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
1 B 2 c	1 B 2 c Venting and flaring	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A	2 A MINERAL PRODUCTS (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 1	2 A 1 Cement Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 2	2 A 2 Lime Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 3	2 A 3 Limestone and Dolomite Use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 4	2 A 4 Soda Ash Production and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 5	2 A 5 Asphalt Roofing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 6	2 A 6 Road Paving with Asphalt	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 B	2 B CHEMICAL INDUSTRY	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 B 1	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 B 2	2 B 2 Nitric Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 B 3	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 B 4	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 B 5	2 B 5 Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 C	2 C METAL PRODUCTION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 D	2 D OTHER PRODUCTION (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 D 1	2 D 1 Pulp and Paper	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE
2 D 2	2 D 2 Food and Drink	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	0,00	NE

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1988 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting					
				Main Pollutants				Particulate matter			Priority metals			Other metals					
				NOx Gg NO ₂	CO Gg	NMVOC Gg	SOx Gg SO ₂	NH3 Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		117,37	7,22	0,99	168,26	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		4,06	0,43	0,14	13,48	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries						NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	21,89	16,41	4,13	24,73	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		6,73	1,51		1,51		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,33	0,93	0,16	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,71	0,19	0,02	0,01		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		55,83	449,76	44,16	0,94	0,05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		9,42	20,40	2,14	2,53	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		29,73	7,94	3,31	4,38	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,09	2,78	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	27,46	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		5,59	1,02	0,36	0,64	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		8,82	8,24	4,49	4,38	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,51	0,85	0,19	4,10	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		5,56	104,40	10,02	11,90	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,52	2,41	1,36	4,38	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c iii		1 A 4 c iii National Fishing		22,15	22,22	4,92	2,43	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		12,31	1,65	0,54	0,95	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	0,98	3,13	0,48	0,03	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NA	30,99	NA	NA	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2	(a)	1 B 2 Oil and natural gas	A	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	IE	IE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		3,52	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO		4,28	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 b	(a)	1 B 2 b Natural gas		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 c	(a)	1 B 2 c Venting and flaring		NA	NA		0,07	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
				1,52	0,99	0,43		NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	33.47				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	3.50	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	16.55	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	24.29	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	11.11	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.14	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.12	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	49.93	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	3.81	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	7.03	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
			Main Pollutants					Particulate matter			Priority metals			Other metals					
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,47	NO	34,66	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES			1,01	201,12	13,60	0,50	0,20	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		307,36	941,48	188,97	245,19	132,37	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,70	0,60	0,13	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,56	0,82	0,20	0,05		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		78,42	6,67	2,10	51,68		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1989 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	pyrene benzo(a) fluoranthene	benzo(b) fluoranthene	fluoranthene benzo(k)	pyrene (1,2,3,4-d) indeno	Total 1-4
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	Mg	Mg	Mg	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 a (i)	1 A 3 a (i) Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 a (ii)	1 A 3 a (ii) Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	0.00	NE

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NE

1 B 2 a	1 B 2 a Oil																				0,00	NE	
1 B 2 a i	1 B 2 a i Exploration Production, Transport																					0,00	NE
1 B 2 a iv	1 B 2 a iv Refining / Storage																					0,00	NE
1 B 2 a v	1 B 2 a v Distribution of oil products																					0,00	NE
1 B 2 a vi	1 B 2 a vi Other																					0,00	NE
1 B 2 b	1 B 2 b Natural gas																					0,00	NE
1 B 2 c	1 B 2 c Venting and flaring																					0,00	NE
2 A	2 A MINERAL PRODUCTS (a)																					0,00	NE
2 A 1	2 A 1 Cement Production																					0,00	NE
2 A 2	2 A 2 Lime Production																					0,00	NE
2 A 3	2 A 3 Limestone and Dolomite Use																					0,00	NE
2 A 4	2 A 4 Soda Ash Production and use																					0,00	NE
2 A 5	2 A 5 Asphalt Roofing																					0,00	NE
2 A 6	2 A 6 Road Paving with Asphalt																					0,00	NE
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																					0,00	NE
2 B	2 B CHEMICAL INDUSTRY																					0,00	NE
2 B 1	2 B 1 Ammonia Production																					0,00	NE
2 B 2	2 B 2 Nitric Acid Production																					0,00	NE
2 B 3	2 B 3 Adipic Acid Production																					0,00	NE
2 B 4	2 B 4 Carbide Production																					0,00	NE
2 B 5	2 B 5 Other (Please specify in a covering note)																					0,00	NE
2 C	2 C METAL PRODUCTION																					0,00	NE
2 D	2 D OTHER PRODUCTION (a)																					0,00	NE
2 D 1	2 D 1 Pulp and Paper																					0,00	NE
2 D 2	2 D 2 Food and Drink																					0,00	NE

6 B	6 B WASTEWATER HANDLING																				0,00	NE	
6 C	6 C WASTE INCINERATION (d)																					0,00	NE
6 D	6 D OTHER WASTE (e)																					0,00	NE
7	7 OTHER																					0,00	NE
	National Total																					0,00	NO

<i>Memo Items</i>																							
1 a 3 a i (i)	International Aviation (LTO)																					0,00	NE
1 a 3 a i (ii)	International Aviation (Cruise)																					0,00	NE
1 a 3 d i	International Marine (b)																					0,00	NE
5 E	5 E Other																					0,00	NE
X	X (11 08 Volcanoes)																					NO	NE

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

- (1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;
- (2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;
- (3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I;
- (4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1989 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		95,76	6,92	0,94	134,59	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 b	(a)	1 A 1 b Petroleum refining		4,26	0,45	0,15	10,82	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries						NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	21,32	14,85	3,86	16,36	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,95	1,79		1,79		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,35	0,92	0,16	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,70	0,19	0,02	0,01		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		55,25	421,13	42,48	0,68	0,05	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		9,79	20,44	2,15	1,79	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		30,78	8,20	3,42	3,02	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,05	8,91	2,68	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	27,54	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 c	(a)	I A 3 c Railways		5,14	0,94	0,34	0,39	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 d ii		I A 3 d ii National Navigation		9,81	8,37	4,53	6,14	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,26	0,60	0,20	1,95	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b i		I A 4 b i Residential plants		4,89	94,98	9,43	7,27	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,23	1,61	1,35	2,69	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 4 c iii		1 A 4 c iii National Fishing		22,15	22,22	4,92	1,62	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		13,32	1,90	0,66	1,27	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A	0,87	1,95	0,31	0,04	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	35,58	NA	NA	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		3,60	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		4,21	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA		0,08	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,34	0,87	0,38		NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 2	(a)	2 B 2 Nitric Acid Production	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	29.44				NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	3.06	NO		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	15.40	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	24.07	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	10.85	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.15	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	48.19	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.28	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	7.30	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
			Main Pollutants					Particulate matter			Priority metals			Other metals					
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,47	NO	36,69	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES			1,45	289,57	19,57	0,72	0,29	NE	NE	NE	NE	NE	NE	NE	NE	NE	
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	
		National Total		287,95	992,98	186,77	191,17	133,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Memo Items																		
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,76	0,69	0,14	0,01	0,00	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,72	0,87	0,20	0,05		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
1 A 3 d i	(a)	International Navigation		80,27	6,83	2,15	52,28		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
5 E	(a)	5 E Other							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
X		X (11 08 Volcanoes)							NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SO₂.

(b) Including Product handling.

(c) Including NH₃ from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1990 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																					
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)							
		kg	Alkyl kg	Chlorane kg	Chlorocone kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	I-Teq kg	DIOX	PAH				Total 1-4 Mg	kg	HCB
																	pyrene benzo(a) fluoranthene Mg	benzo(b) Mg	fluoranthene benzo(k) Mg	pyrene (1,2,3,4-d) Indeno Mg			
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,03	0,01	0,01	0,06	NO			
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO			
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO			
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,03	0,02	0,01	0,07	NO			
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 3 a i (i)	1 A 3 a i Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,03	0,00	0,00	0,05	NO			
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO			
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO		
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,03	0,01	0,03	0,10	NO			
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,02	0,02	0,02	0,07	NO			

6 B	6 B WASTEWATER HANDLING																				0.00	NO					
6 C	6 C WASTE INCINERATION (d)																				0.00	NO					
6 D	6 D OTHER WASTE (e)																				0.00	NO					
	7 OTHER																				0.00	NO					
	National Total																				0.00	1.95	2.57	0.86	1.65	7.02	NO

Memo Items																											
1.3.3.a.i (i)	International Aviation (LTO)																				0.00	0.00	0.00	0.00	0.00	0.00	NO
1.3.3.a.i (ii)	International Aviation (Cruise)																				0.00	0.00	0.00	0.00	0.00	0.00	NO
1.3.3.d.1	International Marine (b)																				0.00	0.01	0.01	0.02	0.04	NO	
5 E	5 E Other																									0.00	NO
X	X (11 08 Volcanoes)																										NO

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I.

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1990 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants				Particulate matter			Priority metals				Other metals					
				NOx Gg NO ₂	CO Gg	NMVOG Gg	SOx Gg SO ₂	NH ₃ Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		91,16	8,48	1,03	126,43	NO	NE	NE	NE	12,71	0,60	2,63	0,95	4,80	3,01	7,74	2,94	15,53
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,58	0,25	0,06	7,69	NO	NE	NE	NE	0,03	0,02	0,01	0,02	0,04	0,02	0,84	0,02	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		2,25	0,25	0,02	0,00	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	19,06	14,84	3,64	15,22	0,00	NE	NE	NE	0,68	0,27	0,13	0,27	0,58	0,66	10,65	0,21	1,17
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE	IE	IE	IE	IE	IE	NE	NE	NE	0,74	0,01	NE	0,03	0,11	NE	0,13	0,52	0,52
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE	IE	IE	IE	IE	IE	NE	NE	NE	0,01	0,00	NE	NE	NE	0,00	NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		6,48	1,46	0,09	1,53	0,00	NE	NE	NE	1,18	0,04	0,11	0,05	0,41	0,11	0,34	0,34	0,24
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,34	0,89	0,16	0,00	0,00	NE	NE	NE	1,53	0,00			0,00	0,04	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,67	0,18	0,02	0,00		NE	NE	NE					0,00	0,08	0,00	0,00	0,05
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

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Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		57,33	427,99	43,69	0,69	0,11	NE	NE	NE	93,85	0,02	NE	NE	0,08	2,67	0,11	0,02	1,57
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,43	21,69	2,28	1,91	0,01	NE	NE	NE	4,20	0,01	NE	NE	0,03	0,95	0,04	0,01	0,56
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		32,30	8,67	3,61	3,17	0,01	NE	NE	NE	0,07	0,01	NE	NE	0,04	1,35	0,06	0,01	0,79
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,39	2,76	0,00	0,00	NE	NE	NE	0,91	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	28,43	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		4,91	0,90	0,32	0,38	0,00	NE	NE	NE	0,00	0,00			0,00	0,16	0,01	0,00	0,09
I A 3 d ii		I A 3 d ii National Navigation		9,38	8,31	4,52	5,53	0,00	NE	NE	NE	0,57	0,00	0,00	0,05	0,02	0,08	2,62	0,05	0,13
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE									
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,21	0,83	0,19	1,88	NO	NE	NE	NE	0,71	0,05	0,14	0,04	0,22	0,14	0,87	0,07	0,91
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE									
I A 4 b i		I A 4 b i Residential plants		5,28	127,06	8,66	6,38	NO	NE	NE	NE	0,17	0,08	0,15	0,06	0,06	0,13	0,18	0,22	1,82
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NE	NE	NE	1,75	0,00	NE	NE	0,00	0,05	0,00	0,00	0,03

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NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,38	3,06	2,14	3,17	NO	NE	NE	NE	0,06	0,02	0,04	0,03	0,05	0,03	0,80	0,02	0,08
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		22,15	22,22	4,92	1,62	0,00	NE	NE	NE	0,85	0,00			0,02	0,71	0,03	0,00	0,42
1 A 4 c iii		1 A 4 c iii National Fishing		13,87	1,98	0,68	1,36	0,00	NE	NE	NE	0,04	0,00	0,01	0,02	0,01	0,02	0,23	0,05	0,12
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,49	0,42	0,06	0,02	0,00	NE	NE	NE	0,06	0,00			0,00	0,06	0,00	0,00	0,04
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	34,76	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		3,67	NO	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		4,43	NO	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA		0,08	NA	NA	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,30	0,84	0,37	0,00	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production		0,81	NE	NE	NE		0,07	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE		0,39	0,33	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE		3,03	0,04	0,25	NE		0,04	0,76		
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE									
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE									

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NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	25.40				NE	NE	NE								
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.62	NO			NE	NE	NE								
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	14.25	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	24.08	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	11.11	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.17	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.07	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	47.40	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.31	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	5.39	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

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NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,08	NO		39,48	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		282,70	745,11	163,99	177,32	133,23	0,00	0,00	0,00	123,16	1,17	3,46	1,51	6,49	10,34	25,41	4,47	36,16

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,74	0,60	0,12	0,01	0,00	NE	NE	NE	0,49	0,00		0,00	0,09	0,00	0,00	0,05	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,41	0,83	0,19	0,05		NE	NE	NE		0,01		0,03	0,86	0,04	0,01	0,51	
1 A 3 d i	(a)	International Navigation		84,42	7,18	2,26	54,30		NE	NE	NE	0,17	0,02	0,03	0,36	0,15	0,36	20,96	0,33	0,76
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

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TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1991 (as YYYY, year of Emissions)

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Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																			
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,01	0,07	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,01	0,06	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 a i (i)	1 A 3 a i Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,03	0,01	0,00	0,05	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,03	0,02	0,03	0,10	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,02	0,02	0,02	0,08	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles															0,00	0,02	0,02	0,00	0,04	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles															0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation																			0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear																			0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion																			0,00	NO
1 A 3 c	1 A 3 c Railways															0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation															0,00	0,00	0,00	0,00	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)																			0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors																			0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery																			0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional															0,04	0,05	0,02	0,03	0,13	NO
1 A 4 b	1 A 4 b Residential																			0,00	NO
1 A 4 b i	1 A 4 b i Residential plants															1,91	2,47	0,81	1,43	6,61	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)															0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing																			0,00	NO
1 A 4 c i	1 A 4 c i Stationary															0,24	0,26	0,04	0,38	0,90	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery															0,00	0,01	0,01	0,00	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing															0,00	0,01	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)																			0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)															0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels																			0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling																			0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation																			0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)																			0,00	NO
1 B 2	1 B 2 Oil and natural gas																			0,00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,25	2,96	0,97	1,94	8,11	NO

<i>Memo Items</i>																									
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,02	0,04	NO	
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1991 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants				Particulate matter			Priority metals				Other metals					
				NOx Gg NO ₂	CO Gg	NMVOOC Gg	SOx Gg SO ₂	NH3 Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		132,51	9,55	1,26	184,41	NO	NE	NE	NE	12,75	0,61	2,81	1,25	5,35	3,34	8,71	4,03	16,49
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,73	0,28	0,06	6,17	NO	NE	NE	NE	0,05	0,03	0,01	0,03	0,07	0,03	1,31	0,03	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		2,30	0,26	0,02	0,00	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	19,38	14,80	3,67	15,85	0,00	NE	NE	NE	0,65	0,28	0,14	0,28	0,63	0,68	11,41	0,23	1,20
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE									
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE									
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE									
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE									
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE									
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,99	1,80	0,10	1,87	0,00	NE	NE	NE	1,10	0,06	0,14	0,08	0,78	0,21	0,64	0,32	0,24
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,31	0,84	0,15	0,00	0,00	NE	NE	NE	1,42	0,00			0,00	0,03	0,00	0,00	0,00
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,60	0,16	0,02	0,00		NE	NE	NE		0,00		0,00	0,07	0,00	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
I A 3 b i		I A 3 b i R.T., Passenger cars		57,84	443,23	44,78	0,71	0,28	NE	NE	NE		72,93	0,02	NE	NE	0,08	2,84	0,12	0,02	1,67
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,83	23,00	2,42	1,97	0,01	NE	NE	NE		3,20	0,01	NE	NE	0,03	0,98	0,04	0,01	0,57
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		32,78	8,79	3,67	3,22	0,01	NE	NE	NE		0,05	0,01	NE	NE	0,04	1,37	0,06	0,01	0,81
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,81	2,87	0,00	0,00	NE	NE	NE		0,70	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	27,69	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		4,99	0,91	0,35	0,38	0,00	NE	NE	NE		0,00	0,00			0,00	0,16	0,01	0,00	0,10
I A 3 d ii		I A 3 d ii National Navigation		11,19	9,73	5,28	6,70	0,00	NE	NE	NE		0,50	0,00	0,01	0,06	0,03	0,10	3,17	0,06	0,16
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE										
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE		IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,15	0,85	0,19	1,66	NO	NE	NE	NE		0,69	0,04	0,14	0,03	0,21	0,14	0,74	0,06	0,91
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE										
I A 4 b i		I A 4 b i Residential plants		5,67	140,29	9,56	7,06	NO	NE	NE	NE		0,19	0,09	0,17	0,07	0,06	0,14	0,18	0,24	2,07
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,31	4,40	0,00	0,00	NE	NE	NE		1,27	0,00	NE	NE	0,00	0,05	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,51	2,72	2,15	3,34	NO	NE	NE	NE	0,07	0,02	0,04	0,03	0,05	0,03	0,85	0,02	0,09
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		21,99	22,08	4,89	1,61	0,00	NE	NE	NE	0,62	0,00			0,02	0,71	0,03	0,00	0,42
1 A 4 c iii		1 A 4 c iii National Fishing		14,05	2,01	0,69	1,14	0,00	NE	NE	NE	0,04	0,00	0,01	0,01	0,01	0,01	0,10	0,05	0,12
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,86	0,98	0,20	0,16	0,00	NE	NE	NE	0,08	0,00			0,00	0,15	0,01	0,00	0,09
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	43,43	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	3,94	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	3,63	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,10	NA	NA	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,68	1,74	0,76	0,00	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A							NE	NE	NE									
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production		0.60	NE	NE	NE		0.07	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE		0.15	0.22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE							NE			
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE									
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	25.19			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.58	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	14.09	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	22.97	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	10.63	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.20	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.05	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	47.05	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.32	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.94	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,07	NO		37,60	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		332,26	787,55	165,89	236,48	129,15	0,00	0,00	0,00	96,29	1,18	3,46	1,84	7,37	11,07	27,38	5,07	25,06

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,70	0,57	0,11	0,00	0,00	NE	NE	NE	0,47	0,00		0,00	0,08	0,00	0,00	0,05	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,92	0,77	0,18	0,05		NE	NE	NE		0,00		0,02	0,80	0,03	0,00	0,47	
1 A 3 d i	(a)	International Navigation		75,58	6,43	2,02	46,07		NE	NE	NE	0,14	0,02	0,03	0,30	0,13	0,30	17,24	0,29	0,66
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1992 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,01	0,07	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,01	0,06	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 a i (i)	1 A 3 a i Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,00	0,06	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,03	0,02	0,03	0,10	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,02	0,02	0,02	0,08	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,04	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 c	1 A 3 c Railways		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,04	0,05	0,02	0,04	0,15	NO
1 A 4 b	1 A 4 b Residential		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 b i	1 A 4 b i Residential plants		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,94	2,52	0,83	1,43	6,72	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 c i	1 A 4 c i Stationary		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,19	0,21	0,03	0,29	0,73	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,01	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 B 1	1 B 1 Fugitive Emissions from Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 2	1 B 2 Oil and natural gas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,25	2,97	0,99	1,86	8,07	NO

<i>Memo Items</i>																								
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,01	0,02	0,05	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1992 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants				Particulate matter			Priority metals				Other metals					
				NOx Gg NO ₂	CO Gg	NMVOG Gg	SOx Gg SO ₂	NH3 Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		91,44	8,88	1,26	136,99	NO	NE	NE	NE	11,61	0,58	2,64	1,07	4,73	2,99	8,14	3,37	15,63
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,97	0,33	0,07	7,32	NO	NE	NE	NE	0,08	0,05	0,02	0,05	0,12	0,05	2,29	0,04	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		2,66	0,29	0,02	0,00	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	18,77	14,64	3,65	14,22	0,00	NE	NE	NE	0,61	0,28	0,13	0,27	0,60	0,66	11,12	0,22	1,20
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE									
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE									
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE									
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE									
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE									
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		8,86	1,99	0,11	2,06	0,00	NE	NE	NE	0,95	0,06	0,15	0,08	0,72	0,20	0,60	0,28	0,23
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,32	0,81	0,15	0,00	0,00	NE	NE	NE	1,38	0,00			0,00	0,03	0,00	0,00	0,00
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,58	0,15	0,02	0,00		NE	NE	NE		0,00		0,00	0,07	0,00	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		58,61	434,50	43,89	0,53	0,46	NE	NE	NE	66,03	0,02	NE	NE	0,09	2,99	0,12	0,02	1,76
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,68	23,18	2,42	1,25	0,01	NE	NE	NE	2,88	0,01	NE	NE	0,03	0,95	0,04	0,01	0,56
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		32,04	8,62	3,60	2,05	0,01	NE	NE	NE	0,05	0,01	NE	NE	0,04	1,34	0,06	0,01	0,79
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,26	2,90	0,00	0,00	NE	NE	NE	0,62	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	27,69	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		5,28	0,96	0,34	0,26	0,00	NE	NE	NE	0,00	0,00			0,01	0,17	0,01	0,00	0,10
I A 3 d ii		I A 3 d ii National Navigation		10,24	10,79	5,93	3,39	0,00	NE	NE	NE	0,49	0,00	0,01	0,05	0,02	0,09	2,51	0,05	0,14
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE									
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,05	0,77	0,19	1,42	NO	NE	NE	NE	0,63	0,04	0,13	0,03	0,18	0,12	0,56	0,05	0,86
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE									
I A 4 b i		I A 4 b i Residential plants		5,26	142,75	9,72	6,16	NO	NE	NE	NE	0,17	0,09	0,16	0,06	0,05	0,14	0,15	0,20	2,02
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	50,01	4,37	0,00	0,00	NE	NE	NE	1,09	0,00	NE	NE	0,00	0,05	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,40	2,42	2,14	3,00	NO	NE	NE	NE	0,07	0,03	0,04	0,03	0,06	0,04	1,06	0,03	0,09
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		21,82	21,93	4,85	1,60	0,00	NE	NE	NE	0,53	0,00			0,02	0,70	0,03	0,00	0,41
1 A 4 c iii		1 A 4 c iii National Fishing		14,20	2,00	0,68	1,17	0,00	NE	NE	NE	0,03	0,00	0,01	0,01	0,01	0,02	0,19	0,05	0,13
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,01	0,50	0,11	0,06	0,00	NE	NE	NE	0,06	0,00			0,00	0,08	0,00	0,00	0,04
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	40,48	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		4,20	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		2,82	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA		0,04	NA	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,76	1,80	0,78	0,00	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production		0.60	NE	NE	NE		0.07	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE		0.06	0.22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE							NE			
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE									
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	24.97			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.53	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	13.93	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	21.36	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	10.28	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.19	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.04	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	48.11	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.56	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	5.30	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,05	NO		35,86	NE	NE	NE								
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		289,88	778,08	164,48	181,71	127,28	0,00	0,00	0,00	87,28	1,16	3,28	1,65	6,69	10,70	26,87	4,34	24,07

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,76	0,58	0,11	0,01	0,00	NE	NE	NE	0,45	0,00		0,00	0,09	0,00	0,00	0,05	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,11	0,79	0,18	0,05		NE	NE	NE		0,00		0,02	0,82	0,03	0,00	0,48	
1 A 3 d i	(a)	International Navigation		79,06	6,73	2,12	37,48	0,00	NE	NE	NE	0,14	0,02	0,03	0,28	0,12	0,28	15,43	0,28	0,66
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1993 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																			
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,01	0,06	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,01	0,06	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 a i (i)	1 A 3 a i Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,00	0,06	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,03	0,02	0,03	0,10	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,02	0,02	0,02	0,07	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,04	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,01	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,04	0,05	0,02	0,04	0,15	NO
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	2,12	2,78	0,91	1,56	7,35	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,18	0,20	0,03	0,28	0,68	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,01	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO

1 B 2 a	1 B 2 a Oil																			0,00	NO
1 B 2 a i	1 B 2 a i Exploration Production, Transport																			0,00	NO
1 B 2 a iv	1 B 2 a iv Refining / Storage																			0,00	NO
1 B 2 a v	1 B 2 a v Distribution of oil products																			0,00	NO
1 B 2 a vi	1 B 2 a vi Other																			0,00	NO
1 B 2 b	1 B 2 b Natural gas																			0,00	NO
1 B 2 c	1 B 2 c Venting and flaring																			0,00	NO
2 A	2 A MINERAL PRODUCTS (a)															0,00	0,00	0,00	0,00	0,00	NO
2 A 1	2 A 1 Cement Production																			0,00	NO
2 A 2	2 A 2 Lime Production																			0,00	NO
2 A 3	2 A 3 Limestone and Dolomite Use																			0,00	NO
2 A 4	2 A 4 Soda Ash Production and use																			0,00	NO
2 A 5	2 A 5 Asphalt Roofing																			0,00	NO
2 A 6	2 A 6 Road Paving with Asphalt																			0,00	NO
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																			0,00	NO
2 B	2 B CHEMICAL INDUSTRY																			0,00	NO
2 B 1	2 B 1 Ammonia Production																			0,00	NO
2 B 2	2 B 2 Nitric Acid Production																			0,00	NO
2 B 3	2 B 3 Adipic Acid Production																			0,00	NO
2 B 4	2 B 4 Carbide Production																			0,00	NO
2 B 5	2 B 5 Other (Please specify in a covering note)																			0,00	NO
2 C	2 C METAL PRODUCTION																			0,00	NO
2 D	2 D OTHER PRODUCTION (a)																			0,00	NO
2 D 1	2 D 1 Pulp and Paper																			0,00	NO
2 D 2	2 D 2 Food and Drink																			0,00	NO
																				0,00	NO

2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B	4 B MANURE MANAGEMENT (b)	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 D	4 D AGRICULTURAL SOILS	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO

6 B	6 B WASTEWATER HANDLING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
6 C	6 C WASTE INCINERATION (d)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
6 D	6 D OTHER WASTE (e)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
7	7 OTHER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
	National Total	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,42	3,19	1,07	1,97	8,65	NO

<i>Memo Items</i>																					
1 a 3 a i (i)	International Aviation (LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,03	0,06	NO
5 E	5 E Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
X	X (11 08 Volcanoes)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I.

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1993 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx Gg NO ₂	CO Gg	NMVOG Gg	SOx Gg SO ₂	NH ₃ Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		94,04	8,71	1,41	105,30	NO	NE	NE	NE	10,95	0,54	2,64	1,10	4,62	2,94	7,27	3,57	15,64
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,01	0,33	0,07	7,53	NO	NE	NE	NE	0,08	0,05	0,02	0,05	0,12	0,05	2,24	0,04	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		2,68	0,30	0,02	0,00	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	18,55	14,45	3,67	13,19	0,00	NE	NE	NE	0,46	0,24	0,12	0,23	0,50	0,62	9,06	0,18	1,22
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE									
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE									
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE									
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE									
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE									
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		8,98	2,02	0,11	2,08	0,00	NE	NE	NE	0,88	0,06	0,15	0,08	0,70	0,19	0,58	0,25	0,21
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,34	0,79	0,14	0,00	0,00	NE	NE	NE	1,33	0,00			0,00	0,03	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,56	0,15	0,02	0,00		NE	NE	NE		0,00		0,00	0,07	0,00	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		57,40	438,75	43,79	0,31	0,64	NE	NE	NE	28,62	0,02	NE	NE	0,09	3,08	0,13	0,02	1,81
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,73	24,11	2,52	0,48	0,01	NE	NE	NE	1,25	0,01	NE	NE	0,03	0,93	0,04	0,01	0,55
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		31,67	8,54	3,56	0,78	0,01	NE	NE	NE	0,02	0,01	NE	NE	0,04	1,33	0,05	0,01	0,78
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,54	2,94	0,00	0,00	NE	NE	NE	0,27	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	25,44	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		5,48	1,00	0,36	0,10	0,00	NE	NE	NE	0,00	0,00			0,01	0,18	0,01	0,00	0,10
I A 3 d ii		I A 3 d ii National Navigation		11,20	12,09	6,66	3,67	0,00	NE	NE	NE	0,24	0,00	0,01	0,04	0,02	0,09	1,95	0,05	0,14
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE									
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,11	0,82	0,20	1,36	NO	NE	NE	NE	0,55	0,03	0,13	0,02	0,16	0,11	0,48	0,05	0,81
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE									
I A 4 b i		I A 4 b i Residential plants		5,80	150,23	10,21	6,77	NO	NE	NE	NE	0,19	0,10	0,17	0,07	0,06	0,15	0,13	0,24	2,26
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	49,71	4,35	0,00	0,00	NE	NE	NE	0,45	0,00	NE	NE	0,00	0,05	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO _x	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,32	2,16	1,98	2,92	NO	NE	NE	NE	0,07	0,03	0,03	0,03	0,07	0,03	1,10	0,03	0,08
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		21,65	21,70	4,82	1,59	0,00	NE	NE	NE	0,22	0,00		0,02	0,70	0,03	0,00	0,41	
1 A 4 c iii		1 A 4 c iii National Fishing		11,28	1,59	0,54	0,95	0,00	NE	NE	NE	0,02	0,00	0,01	0,01	0,01	0,01	0,12	0,04	0,10
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,30	0,83	0,15	0,03	0,00	NE	NE	NE	0,12	0,00		0,00	0,13	0,01	0,00	0,08	
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	35,48	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	4,22	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	2,89	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,07	NA	NA	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,41	1,56	0,68	0,00	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A							NE	NE	NE									
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production		0,60	NE	NE	NE		0,07	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE		0,04	0,22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE							NE			
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE									
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	24.75			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.48	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	15.52	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	20.73	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	9.97	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.17	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	48.48	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.90	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	3.57	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,02	NO		34,20	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		289,41	785,95	164,61	147,29	123,78	0,00	0,00	0,00	45,73	1,09	3,28	1,63	6,44	10,71	23,20	4,49	24,30

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,78	0,59	0,11	0,01	0,00	NE	NE	NE	0,46	0,00		0,00	0,09	0,00	0,00	0,05	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,95	0,78	0,18	0,05		NE	NE	NE		0,00		0,02	0,80	0,03	0,00	0,47	
1 A 3 d i	(a)	International Navigation		117,62	10,01	3,15	65,38	0,00	NE	NE	NE	0,23	0,03	0,04	0,47	0,20	0,47	27,16	0,45	1,04
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1994 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,01	0,07	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,01	0,07	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,01	0,01	0,06	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,03	0,02	0,03	0,10	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,02	0,02	0,02	0,08	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles																		0,00	0,02	0,02	0,00	0,04	NO	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles																		0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation																						0,00	NO	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear																						0,00	NO	
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion																						0,00	NO	
1 A 3 c	1 A 3 c Railways																		0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation																		0,00	0,00	0,00	0,01	0,01	NO	
1 A 3 e	1 A 3 e Other (Please specify in a covering note)																						0,00	NO	
1 A 3 e i	1 A 3 e i Pipeline compressors																						0,00	NO	
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery																						0,00	NO	
1 A 4 a	1 A 4 a Commercial / Institutional																		0,05	0,07	0,02	0,04	0,18	NO	
1 A 4 b	1 A 4 b Residential																						0,00	NO	
1 A 4 b i	1 A 4 b i Residential plants																		2,06	2,67	0,88	1,50	7,11	NO	
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)																		0,00	0,00	0,00	0,00	0,00	NO	
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing																						0,00	NO	
1 A 4 c i	1 A 4 c i Stationary																		0,19	0,20	0,03	0,30	0,71	NO	
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery																		0,00	0,01	0,01	0,00	0,03	NO	
1 A 4 c iii	1 A 4 c iii National Fishing																		0,00	0,01	0,00	0,01	0,02	NO	
1 A 5 a	1 A 5 a Other, Stationary (including Military)																						0,00	NO	
1 A 5 b	1 A 5 b Other, Mobile (Including military)																		0,00	0,00	0,00	0,00	0,00	NO	
1 B1	1 B1 Fugitive Emissions from Solid Fuels																						0,00	NO	
1 B 1 a	1 B 1 a Coal Mining and Handling																						0,00	NO	
1 B 1 b	1 B 1 b Solid fuel transformation																						0,00	NO	
1 B 1 c	1 B 1 c Other (Please specify in a covering note)																						0,00	NO	
1 B 2	1 B 2 Oil and natural gas																						0,00	NO	

1 B 2 a	1 B 2 a Oil																				0,00	NO	
1 B 2 a i	1 B 2 a i Exploration Production, Transport																				0,00	NO	
1 B 2 a iv	1 B 2 a iv Refining / Storage																				0,00	NO	
1 B 2 a v	1 B 2 a v Distribution of oil products																				0,00	NO	
1 B 2 a vi	1 B 2 a vi Other																				0,00	NO	
1 B 2 b	1 B 2 b Natural gas																				0,00	NO	
1 B 2 c	1 B 2 c Venting and flaring																				0,00	NO	
2 A	2 A MINERAL PRODUCTS (a)																0,00	0,00	0,00	0,00	0,00	0,00	NO
2 A 1	2 A 1 Cement Production																				0,00	NO	
2 A 2	2 A 2 Lime Production																				0,00	NO	
2 A 3	2 A 3 Limestone and Dolomite Use																				0,00	NO	
2 A 4	2 A 4 Soda Ash Production and use																				0,00	NO	
2 A 5	2 A 5 Asphalt Roofing																				0,00	NO	
2 A 6	2 A 6 Road Paving with Asphalt																				0,00	NO	
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																				0,00	NO	
2 B	2 B CHEMICAL INDUSTRY																				0,00	NO	
2 B 1	2 B 1 Ammonia Production																				0,00	NO	
2 B 2	2 B 2 Nitric Acid Production																				0,00	NO	
2 B 3	2 B 3 Adipic Acid Production																				0,00	NO	
2 B 4	2 B 4 Carbide Production																				0,00	NO	
2 B 5	2 B 5 Other (Please specify in a covering note)																				0,00	NO	
2 C	2 C METAL PRODUCTION																				0,00	NO	
2 D	2 D OTHER PRODUCTION (a)																				0,00	NO	
2 D 1	2 D 1 Pulp and Paper																				0,00	NO	
2 D 2	2 D 2 Food and Drink																				0,00	NO	

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,37	3,13	1,05	1,94	8,50	NO

<i>Memo Items</i>																								
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,04	0,08	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1994 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants				Particulate matter			Priority metals				Other metals					
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		98,07	9,40	2,27	105,27	NO	NE	NE	NE	9,66	0,55	2,45	1,01	3,87	2,65	9,25	2,98	15,30
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,89	0,33	0,04	2,68	NO	NE	NE	NE	0,08	0,05	0,01	0,05	0,11	0,04	2,14	0,04	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		3,05	0,34	0,02	0,00	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	19,31	14,80	3,76	14,77	0,00	NE	NE	NE	0,48	0,28	0,14	0,27	0,59	0,66	10,79	0,21	1,38
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE		IE	IE	IE	IE	NE	NE	NE			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE		IE	IE	IE	IE	NE	NE	NE			NE	NE	NE	NE	NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		8,97	2,02	0,12	2,08	0,00	NE	NE	NE	0,88	0,06	0,15	0,08	0,74	0,20	0,62	0,27	0,22
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,35	0,95	0,17	0,00	0,00	NE	NE	NE	1,64	0,00			0,00	0,03	0,00	0,00	0,00
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,58	0,15	0,02	0,00		NE	NE	NE		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting							
				Main Pollutants					Particulate matter			Priority metals			Other metals							
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn		
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg		
I A 3 b i		I A 3 b i R.T., Passenger cars		55,07	410,80	40,91	0,32	0,94	NE	NE	NE		5,21	0,02	NE	NE	0,09	3,20	0,13	0,02	1,88	
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		11,21	24,46	2,55	0,52	0,01	NE	NE	NE		0,22	0,01	NE	NE	0,03	0,99	0,04	0,01	0,58	
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		32,55	8,71	3,65	0,84	0,01	NE	NE	NE		0,00	0,01	NE	NE	0,04	1,42	0,06	0,01	0,84	
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,79	2,89	0,00	0,00	NE	NE	NE		0,05	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02	
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	24,20	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	
I A 3 c	(a)	I A 3 c Railways		4,97	0,91	0,32	0,10	0,00	NE	NE	NE				0,00			0,00	0,16	0,01	0,00	0,10
I A 3 d ii		I A 3 d ii National Navigation		10,62	13,20	7,32	3,27	0,00	NE	NE	NE		0,07	0,00	0,01	0,03	0,02	0,08	1,59	0,04	0,14	
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE											
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE		IE	IE	IE	IE	IE	IE	IE	IE	IE	
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO	
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,14	0,84	0,31	1,36	NO	NE	NE	NE		0,51	0,04	0,12	0,03	0,16	0,11	0,69	0,04	0,80	
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE											
I A 4 b i		I A 4 b i Residential plants		5,51	143,75	9,94	5,63	NO	NE	NE	NE		0,16	0,09	0,16	0,06	0,05	0,14	0,10	0,21	2,13	
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	49,41	4,32	0,00	0,00	NE	NE	NE		0,08	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,38	1,48	1,88	2,71	NO	NE	NE	NE		0,07	0,03	0,03	0,04	0,07	0,04	1,26	0,03	0,07
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		21,49	21,65	4,78	1,57	0,00	NE	NE	NE		0,04	0,00			0,02	0,65	0,03	0,00	0,41
1 A 4 c iii		1 A 4 c iii National Fishing		10,94	1,56	0,53	0,78	0,00	NE	NE	NE		0,02	0,00	0,01	0,01	0,01	0,01	0,02	0,04	0,10
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE										
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,26	0,81	0,13	0,03	0,00	NE	NE	NE		0,00	0,00			0,00	0,14	0,01	0,00	0,08
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	39,91	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE										
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		5,86	4,27	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		2,99	NO	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA		0,41	0,00	NA	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,61	1,55	0,67	0,52	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production		0,60	NE	NE	NE		0,07	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE		0,05	0,22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE									
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE		0,59	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	24.54			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.43	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	13.60	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	19.64	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	9.03	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.15	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.01	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	44.69	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	5.41	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.15	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,14	NO		34,64	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		291,91	757,78	162,42	146,94	119,76	0,00	0,00	0,00	19,18	1,14	3,09	1,57	5,82	10,71	26,73	3,91	24,13

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,78	0,45	0,08	0,01	0,00	NE	NE	NE	0,15	0,00		0,00	0,09	0,00	0,00	0,06	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,56	0,86	0,20	0,05		NE	NE	NE		0,01		0,03	0,89	0,04	0,01	0,52	
1 A 3 d i	(a)	International Navigation		132,16	11,24	3,54	69,31		NE	NE	NE	0,25	0,03	0,05	0,51	0,21	0,51	28,66	0,49	1,14
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1995 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.01	0.05	0.01	0.01	0.08	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.02	0.02	0.01	0.07	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.01	0.04	0.01	0.01	0.07	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.03	0.02	0.03	0.09	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.02	0.02	0.02	0.08	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,04	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,01	0,02	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,06	0,08	0,03	0,05	0,22	NO
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	2,07	2,70	0,90	1,49	7,15	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,15	0,17	0,03	0,24	0,58	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO

1 B 2 a	1 B 2 a Oil	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO	
1 B 2 a i	1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
1 B 2 a iv	1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
1 B 2 a v	1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
1 B 2 a vi	1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
1 B 2 b	1 B 2 b Natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
1 B 2 c	1 B 2 c Venting and flaring	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A	2 A MINERAL PRODUCTS (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00				0,00	NO
2 A 1	2 A 1 Cement Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A 2	2 A 2 Lime Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A 3	2 A 3 Limestone and Dolomite Use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A 4	2 A 4 Soda Ash Production and use	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A 5	2 A 5 Asphalt Roofing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A 6	2 A 6 Road Paving with Asphalt	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 B	2 B CHEMICAL INDUSTRY	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 B 1	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 B 2	2 B 2 Nitric Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 B 3	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 B 4	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 B 5	2 B 5 Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 C	2 C METAL PRODUCTION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 D	2 D OTHER PRODUCTION (a)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 D 1	2 D 1 Pulp and Paper	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO
2 D 2	2 D 2 Food and Drink	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO								0,00	NO

6 B	6 B WASTEWATER HANDLING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 C	6 C WASTE INCINERATION (d)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 D	6 D OTHER WASTE (e)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
7	7 OTHER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
	National Total	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,36	3,15	1,06	1,88	8,45	NO

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO	
1 a 3 a i (ii)	International Aviation (Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO	
1 a 3 d i	International Marine (b)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,03	0,01	0,04	0,08	0,08	NO	
5 E	5 E Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
X	X (11 08 Volcanoes)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1995 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		83,39	10,37	3,39	104,38	NO	NE	NE	NE	7,17	0,37	2,04	0,41	2,61	1,92	6,49	2,64	16,53
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,95	0,36	0,04	1,25	NO	NE	NE	NE	0,05	0,03	0,01	0,03	0,08	0,03	1,50	0,03	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		3,21	0,36	0,03	0,00	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	19,41	14,57	3,78	13,99	0,00	NE	NE	NE	0,46	0,26	0,13	0,25	0,55	0,64	10,06	0,20	1,32
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE							NE		
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE							NE		
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE							NE		
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE							NE		
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE							NE		
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		9,10	2,05	0,12	2,11	0,00	NE	NE	NE	1,53	0,06	0,15	0,08	0,69	0,19	0,58	0,46	0,28
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,37	1,04	0,19	0,00	0,00	NE	NE	NE	1,79	0,00			0,00	0,04	0,00	0,00	0,00
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,58	0,15	0,02	0,00		NE	NE	NE		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
I A 3 b i		I A 3 b i R.T., Passenger cars		52,95	396,23	38,63	0,33	1,18	NE	NE	NE		5,27	0,02	NE	NE	0,10	3,25	0,13	0,02	1,91
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,79	23,17	2,45	0,50	0,02	NE	NE	NE		0,23	0,01	NE	NE	0,03	0,97	0,04	0,01	0,57
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		31,92	8,48	3,64	0,85	0,01	NE	NE	NE		0,00	0,01	NE	NE	0,04	1,45	0,06	0,01	0,85
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,96	2,96	0,00	0,00	NE	NE	NE		0,05	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	21,80	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		5,01	0,91	0,35	0,10	0,00	NE	NE	NE		0,00	0,00			0,00	0,16	0,01	0,00	0,10
I A 3 d ii		I A 3 d ii National Navigation		11,22	14,45	8,04	2,78	0,00	NE	NE	NE		0,07	0,00	0,01	0,03	0,01	0,08	1,17	0,04	0,14
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE										
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE		IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,16	0,83	0,36	0,78	NO	NE	NE	NE		0,44	0,03	0,12	0,03	0,13	0,10	0,65	0,04	0,77
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE										
I A 4 b i		I A 4 b i Residential plants		5,47	138,56	9,83	2,48	NO	NE	NE	NE		0,16	0,09	0,16	0,05	0,05	0,14	0,07	0,20	2,15
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,25	49,11	4,29	0,00	0,00	NE	NE	NE		0,08	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,57	1,72	1,84	2,89	NO	NE	NE	NE		0,09	0,04	0,03	0,04	0,09	0,05	1,69	0,04	0,07
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		21,32	21,50	4,75	1,56	0,00	NE	NE	NE		0,04	0,00			0,02	0,68	0,03	0,00	0,40
1 A 4 c iii		1 A 4 c iii National Fishing		10,18	1,48	0,51	0,74	0,00	NE	NE	NE		0,02	0,00	0,01	0,01	0,01	0,01	0,03	0,04	0,09
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE										
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,72	0,85	0,19	0,05	0,00	NE	NE	NE		0,10	0,00			0,00	0,14	0,01	0,00	0,08
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	44,10	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE										
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		4,55	3,02	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		3,02	NO	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA		0,53	0,00	NA	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,88	1,21	0,52	0,20	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A							NE	NE	NE									
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production		0,60	NE	NE	NE		0,07	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	NE	NE		0,06	0,22	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A							NE	NE	NE									
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE		0,63	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)							NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	24.31			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.38	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	13.44	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	19.05	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	8.55	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.15	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	0.99	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	40.98	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	5.05	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.14	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,33	NO		33,03	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		274,10	742,45	157,95	138,24	113,24	0,00	0,00	0,00	17,54	0,93	2,66	0,93	4,44	9,98	22,50	3,74	25,37

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,84	0,51	0,12	0,01	0,00	NE	NE	NE	0,18	0,00		0,00	0,10	0,00	0,00	0,06	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,70	0,88	0,20	0,05		NE	NE	NE		0,01		0,03	0,91	0,04	0,01	0,53	
1 A 3 d i	(a)	International Navigation		138,53	11,78	3,71	76,28		NE	NE	NE	0,26	0,04	0,05	0,51	0,22	0,51	29,02	0,51	1,18
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1996 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																			
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,06	0,02	0,01	0,10	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,01	0,07	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 a i (i)	1 A 3 a i Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,05	0,01	0,01	0,08	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,03	0,02	0,03	0,09	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,02	0,02	0,02	0,08	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,05	NO	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 c	1 A 3 c Railways		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	0,02	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,09	0,12	0,04	0,07	0,32	0,32	NO
1 A 4 b	1 A 4 b Residential		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 b i	1 A 4 b i Residential plants		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	2,20	2,87	0,96	1,56	7,59	7,59	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 c i	1 A 4 c i Stationary		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,13	0,14	0,03	0,19	0,50	0,50	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,03	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 2	1 B 2 Oil and natural gas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO

1 B 2 a	1 B 2 a Oil																			0,00	NO
1 B 2 a i	1 B 2 a i Exploration Production, Transport																			0,00	NO
1 B 2 a iv	1 B 2 a iv Refining / Storage																			0,00	NO
1 B 2 a v	1 B 2 a v Distribution of oil products																			0,00	NO
1 B 2 a vi	1 B 2 a vi Other																			0,00	NO
1 B 2 b	1 B 2 b Natural gas																			0,00	NO
1 B 2 c	1 B 2 c Venting and flaring																			0,00	NO
2 A	2 A MINERAL PRODUCTS (a)	A														0,00	0,00	0,00	0,00	0,00	NO
2 A 1	2 A 1 Cement Production																			0,00	NO
2 A 2	2 A 2 Lime Production																			0,00	NO
2 A 3	2 A 3 Limestone and Dolomite Use																			0,00	NO
2 A 4	2 A 4 Soda Ash Production and use																			0,00	NO
2 A 5	2 A 5 Asphalt Roofing																			0,00	NO
2 A 6	2 A 6 Road Paving with Asphalt																			0,00	NO
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																			0,00	NO
2 B	2 B CHEMICAL INDUSTRY	A																		0,00	NO
2 B 1	2 B 1 Ammonia Production																			0,00	NO
2 B 2	2 B 2 Nitric Acid Production																			0,00	NO
2 B 3	2 B 3 Adipic Acid Production																			0,00	NO
2 B 4	2 B 4 Carbide Production																			0,00	NO
2 B 5	2 B 5 Other (Please specify in a covering note)																			0,00	NO
2 C	2 C METAL PRODUCTION																			0,00	NO
2 D	2 D OTHER PRODUCTION (a)	A																		0,00	NO
2 D 1	2 D 1 Pulp and Paper																			0,00	NO
2 D 2	2 D 2 Food and Drink																			0,00	NO

2 G	2 G OTHER (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 A	3 A PAINT APPLICATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 B	3 B DEGREASING AND DRY CLEANING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B	4 B MANURE MANAGEMENT (b)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 1	4 B 1 Cattle	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 1 a	4 B 1 a Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 1 b	4 B 1 b Non-Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 2	4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 3	4 B 3 Sheep	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 4	4 B 4 Goats	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 5	4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 6	4 B 6 Horses	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 7	4 B 7 Mules and Asses	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 8	4 B 8 Swine	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 9	4 B 9 Poultry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 B 13	4 B 13 Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 C	4 C RICE CULTIVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 D	4 D AGRICULTURAL SOILS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 D 1	4 D 1 Direct Soil Emission	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
4 G	4 G OTHER (c)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
5 B	5 B FOREST AND GRASSLAND CONVERSION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO
6 A	6 A SOLID WASTE DISPOSAL ON LAND	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO					
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,51	3,37	1,14	1,93	8,95	NO

<i>Memo Items</i>																								
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,04	0,08	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1996 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx Gg NO ₂	CO Gg	NMVOG Gg	SOx Gg SO ₂	NH ₃ Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		120,65	12,60	4,36	142,96	NO	NE	NE	NE	6,18	0,33	2,07	0,59	2,56	1,94	7,40	2,76	16,47
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,36	0,35	0,03	1,13	NO	NE	NE	NE	0,05	0,03	0,01	0,03	0,07	0,03	1,44	0,03	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		3,76	0,43	0,03	0,01	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	19,85	14,58	3,92	13,43	0,00	NE	NE	NE	0,46	0,26	0,13	0,25	0,55	0,64	10,01	0,20	1,36
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE		IE	IE	IE	IE	NE	NE	NE						NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE		IE	IE	IE	IE	NE	NE	NE				NE			NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		9,68	2,18	0,12	2,24	0,22	NE	NE	NE	0,72	0,04	0,15	0,07	0,36	0,11	0,31	0,23	0,19
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,37	0,98	0,18	0,00	0,00	NE	NE	NE	1,64	0,00			0,00	0,04	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,60	0,16	0,02	0,00		NE	NE	NE		0,00		0,00	0,07	0,00	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
I A 3 b i		I A 3 b i R.T., Passenger cars		50,99	394,95	37,38	0,34	1,37	NE	NE	NE		5,31	0,02	NE	NE	0,10	3,28	0,13	0,02	1,93
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,85	23,11	2,48	0,52	0,02	NE	NE	NE		0,23	0,01	NE	NE	0,03	1,00	0,04	0,01	0,59
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		31,49	8,35	3,61	0,87	0,01	NE	NE	NE		0,00	0,01	NE	NE	0,04	1,48	0,06	0,01	0,87
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,07	11,53	3,17	0,00	0,00	NE	NE	NE		0,05	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	19,06	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		4,98	0,91	0,32	0,10	0,00	NE	NE	NE		0,00	0,00			0,00	0,16	0,01	0,00	0,10
I A 3 d ii		I A 3 d ii National Navigation		11,64	15,69	8,74	2,09	0,00	NE	NE	NE		0,07	0,00	0,01	0,02	0,01	0,08	0,86	0,04	0,14
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE										
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE		IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,26	0,96	0,49	0,75	NO	NE	NE	NE		0,31	0,03	0,10	0,02	0,10	0,08	0,56	0,04	0,68
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE										
I A 4 b i		I A 4 b i Residential plants		5,75	140,71	10,21	2,47	NO	NE	NE	NE		0,17	0,10	0,17	0,06	0,05	0,15	0,08	0,21	2,29
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	48,80	4,27	0,00	0,00	NE	NE	NE		0,08	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,78	1,84	1,84	2,92	NO	NE	NE	NE	0,09	0,04	0,04	0,05	0,11	0,05	1,98	0,05	0,08
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		21,16	21,36	4,71	0,39	0,00	NE	NE	NE	0,04	0,00			0,02	0,68	0,03	0,00	0,40
1 A 4 c iii		1 A 4 c iii National Fishing		11,03	1,44	0,46	1,02		NE	NE	NE	0,02	0,00	0,01	0,01	0,01	0,01	0,17	0,04	0,10
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,94	0,60	0,11	0,02	0,00	NE	NE	NE	0,10	0,00			0,00	0,09	0,00	0,00	0,06
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	44,52	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	5,88	2,61	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	2,65	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,43	0,00	NA	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,08	1,33	0,58	0,22	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0.10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A																		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0.50	NE	NE	NE	0.06	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0.04	NE	0.11	0.08	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	0.73	0.04	0.15	NE	0.01	0.29	NE	5.78		
2 D	(a)	2 D OTHER PRODUCTION (b) A																		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0.60	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)																		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	24.09				NE	NE	NE								
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.33	NO			NE	NE	NE								
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	13.28	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
4 B	(a)	4 B MANURE MANAGEMENT (e)	A							NE	NE	NE								
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	18.44	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	8.45	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.16	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.00	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	40.19	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.93	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.27	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting							
			Main Pollutants					Particulate matter			Priority metals		Other metals							
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A							NE	NE	NE								
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,31	NO		30,37	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		312,08	747,37	156,86	174,17	109,53	0,00	0,00	0,00	16,26	0,92	2,83	1,11	4,03	9,96	23,39	3,64	31,13

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,89	0,54	0,12	0,01	0,00	NE	NE	NE	0,13	0,00		0,00	0,11	0,00	0,00	0,06	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7,03	0,93	0,21	0,06		NE	NE	NE		0,01		0,03	0,95	0,04	0,01	0,56	
1 A 3 d i	(a)	International Navigation		131,50	11,19	3,52	71,54		NE	NE	NE	0,13	0,02	0,01	0,33	0,13	0,33	19,86	0,27	0,61
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1997 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																			
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benz(a) fluoranthene	benz(b) fluoranthene	fluoranthene benz(a)k	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.01	0.05	0.02	0.01	0.10	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.02	0.02	0.01	0.06	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 3 a (i)	1 A 3 a (i) Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.06	0.01	0.01	0.09	NO	
1 A 3 a (ii)	1 A 3 a (ii) Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.03	0.02	0.03	0.09	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.02	0.02	0.02	0.08	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,05	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,01	0,02	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,10	0,13	0,04	0,07	0,34	NO
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	2,18	2,85	0,95	1,55	7,53	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,12	0,13	0,03	0,17	0,45	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO

6 B	6 B WASTEWATER HANDLING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO				
6 C	6 C WASTE INCINERATION (d)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO				
6 D	6 D OTHER WASTE (e)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO				
7	7 OTHER	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO				
	National Total	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,48	3,33	1,13	1,89	8,84	NO

<i>Memo Items</i>																					
1 a 3 a i (i)	International Aviation (LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,04	0,08	0,08	NO
5 E	5 E Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
X	X (11 08 Volcanoes)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1997 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx Gg NO ₂	CO Gg	NMVOG Gg	SOx Gg SO ₂	NH3 Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		78,94	11,04	4,10	74,28	NO	NE	NE	NE	3,81	0,30	1,63	0,43	1,77	1,64	7,85	1,97	11,42
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,00	0,29	0,01	1,32	NO	NE	NE	NE	0,04	0,02	0,01	0,02	0,05	0,02	1,04	0,02	0,01
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		4,93	0,55	0,04	0,01	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	19,51	14,55	3,91	9,78	0,00	NE	NE	NE	0,39	0,23	0,12	0,22	0,48	0,61	8,62	0,18	1,36
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE						IE	IE	IE	0,61	0,01	NE	0,03	0,09	NE	0,11	0,43	0,43
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE						IE	IE	IE	0,01	0,00	NE	NE	NE	0,00	NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE						IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		10,09	2,69	0,12	3,10	0,30	NE	NE	NE	0,20	0,04	0,17	0,07	0,36	0,11	0,32	0,29	0,16
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,38	0,94	0,17	0,00	0,00	NE	NE	NE	1,56	0,00			0,00	0,04	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,62	0,16	0,02	0,00	0,00	NE	NE	NE		0,00		0,00	0,08	0,00	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		48,03	347,65	32,72	0,34	1,69	NE	NE	NE	0,05	0,02	NE	NE	0,10	3,36	0,14	0,02	1,98
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,67	21,01	2,29	0,53	0,03	NE	NE	NE	0,00	0,01	NE	NE	0,03	1,01	0,04	0,01	0,59
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		30,31	7,83	3,43	0,87	0,01	NE	NE	NE	0,00	0,01	NE	NE	0,04	1,49	0,06	0,01	0,88
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,08	12,29	3,35	0,00	0,00	NE	NE	NE	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	17,40	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		4,85	0,88	0,32	0,09	0,00	NE	NE	NE	0,00	0,00			0,00	0,16	0,01	0,00	0,09
I A 3 d ii		I A 3 d ii National Navigation		10,25	16,69	9,37	1,85	0,00	NE	NE	NE	0,02	0,00	0,01	0,02	0,01	0,08	0,71	0,04	0,13
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE									
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,16	0,88	0,51	0,62	NO	NE	NE	NE	0,20	0,03	0,08	0,02	0,07	0,06	0,54	0,04	0,58
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE									
I A 4 b i		I A 4 b i Residential plants		5,34	135,81	10,10	2,24	NO	NE	NE	NE	0,15	0,10	0,16	0,05	0,04	0,14	0,06	0,19	2,21
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	48,50	4,24	0,00	0,00	NE	NE	NE	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,79	1,96	1,93	2,17	NO	NE	NE	NE	0,08	0,04	0,03	0,04	0,09	0,04	1,61	0,04	0,08
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		20,99	21,22	4,68	0,39	0,00	NE	NE	NE	0,00	0,00			0,02	0,67	0,03	0,00	0,40
1 A 4 c iii		1 A 4 c iii National Fishing		10,96	1,53	0,51	1,09	0,00	NE	NE	NE	0,02	0,00	0,01	0,01	0,01	0,01	0,20	0,04	0,10
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,14	0,58	0,13	0,04	0,00	NE	NE	NE	0,12	0,00			0,00	0,09	0,00	0,00	0,05
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	45,68	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		4,55	1,98	NO	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		2,30	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA		0,44	0,00	NA	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		3,00	1,94	0,84	0,14	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0,09	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A																		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0,57	NE	NE	NE	0,04	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0,04	NE	0,04	0,00	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	0,70	0,03	0,08	NE	0,00	0,05	0,23	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A																		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0,57	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)																		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	23.88			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.29	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	13.12	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	17.71	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	7.98	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.12	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.00	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	41.27	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.89	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.87	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting							
			Main Pollutants					Particulate matter			Priority metals		Other metals							
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A							NE	NE	NE								
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO		1.27	NO		29.30	NE	NE	NE	NO	NO	NO	NO	NO	NO	
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	
		National Total		265.89	694.65	148.74	100.87	109.25	0.00	0.00	0.00	7.98	0.85	2.31	0.91	3.18	9.73	21.57	3.27	26.23

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0.95	0.59	0.12	0.01	0.00	NE	NE	NE	0.14	0.00		0.00	0.12	0.00	0.00	0.07	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7.13	0.95	0.21	0.06		NE	NE	NE		0.01		0.03	0.97	0.04	0.01	0.57	
1 A 3 d i	(a)	International Navigation		120.57	10.26	3.23	65.59		NE	NE	NE	0.22	0.03	0.05	0.43	0.18	0.43	23.83	0.44	1.01
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1998 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,65	0,01	0,05	0,02	0,01	0,09	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,02	0,02	0,01	0,05	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,7					0,00	NO	
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,75					0,00	NO	
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,02	0,05	0,01	0,01	0,08	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,2					0,00	NO	
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,02	0,03	0,02	0,03	0,09	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,02	0,02	0,02	0,02	0,07	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,05	NO	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 c	1 A 3 c Railways		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,007	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,3	0,00	0,00	0,00	0,01	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,09	0,11	0,04	0,06	0,30	NO	
1 A 4 b	1 A 4 b Residential		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 b i	1 A 4 b i Residential plants		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	21	1,94	2,53	0,84	1,37	6,68	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	3,3	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 c i	1 A 4 c i Stationary		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,10	0,11	0,02	0,13	0,36	NO	
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,03	NO	
1 A 4 c iii	1 A 4 c iii National Fishing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	NO	
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 B1	1 B1 Fugitive Emissions from Solid Fuels		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 2	1 B 2 Oil and natural gas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO

2 G	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 A	3 A PAINT APPLICATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 B	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	13,25	NO	0,00	NO
4 B	4 B MANURE MANAGEMENT (b)	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 1	4 B 1 Cattle		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 1 a	4 B 1 a Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 1 b	4 B 1 b Non-Dairy		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 3	4 B 3 Sheep		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 4	4 B 4 Goats		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 6	4 B 6 Horses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 8	4 B 8 Swine		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 9	4 B 9 Poultry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 13	4 B 13 Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 D	4 D AGRICULTURAL SOILS	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 D 1	4 D 1 Direct Soil Emission		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	5,1	NO	0,00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,11					0,00	NO
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	28,96					0,00	NO
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25					0,00	NO
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	92,83	2,20	2,96	1,02	1,66	7,83	NO

<i>Memo Items</i>																						
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,03	0,01	0,04	0,09	0,09	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I.

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1998 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		64,68	11,89	4,54	53,60	NO	NE	NE	NE	3,31	0,30	1,51	0,41	1,36	1,38	6,02	1,65	11,70
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,65	0,24	0,00	0,93	NO	NE	NE	NE	0,03	0,01	0,00	0,02	0,04	0,01	0,71	0,01	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		5,50	0,64	0,05	0,01	NO	NE	NE	NE	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	17,96	13,79	3,70	7,20	0,00	NE	NE	NE	0,30	0,18	0,09	0,16	0,37	0,54	6,58	0,14	1,04
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE		IE	IE	IE	IE	NE	NE	NE	0,62	0,01	NE	0,03	0,09	NE	0,11	0,43	0,43
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE		IE	IE	IE	IE	NE	NE	NE	0,01	0,00	NE	NE	NE	0,00	NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE		IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		10,25	5,33	0,12	2,79	0,27	NE	NE	NE	0,45	0,04	0,17	0,07	0,36	0,11	0,32	0,09	0,18
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,34	0,84	0,15	0,00	0,00	NE	NE	NE	1,40	0,00			0,00	0,03	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,58	0,15	0,02	0,00	0,00	NE	NE	NE		0,00		0,00	0,07	0,00	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		45,48	320,45	29,70	0,36	1,89	NE	NE	NE	0,06	0,02	NE	NE	0,10	3,44	0,14	0,02	2,03
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,20	19,30	2,13	0,51	0,04	NE	NE	NE	0,00	0,01	NE	NE	0,03	0,98	0,04	0,01	0,58
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		29,88	7,72	3,40	0,90	0,01	NE	NE	NE	0,00	0,01	NE	NE	0,05	1,54	0,06	0,01	0,90
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,24	3,60	0,00	0,00	NE	NE	NE	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	15,79	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		4,09	0,74	0,27	0,08	0,00	NE	NE	NE	0,00	0,00			0,00	0,13	0,01	0,00	0,08
I A 3 d ii		I A 3 d ii National Navigation		8,46	17,63	9,99	1,68	0,00	NE	NE	NE	0,02	0,00	0,01	0,02	0,01	0,09	0,99	0,03	0,12
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE									
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,02	0,74	0,39	0,42	NO	NE	NE	NE	0,15	0,02	0,06	0,02	0,05	0,04	0,32	0,03	0,45
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE									
I A 4 b i		I A 4 b i Residential plants		5,06	118,70	9,18	2,05	NO	NE	NE	NE	0,14	0,09	0,14	0,05	0,04	0,13	0,06	0,18	1,99
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	48,20	4,21	0,00	0,00	NE	NE	NE	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A							NE	NE	NE								
1 A 4 c i		1 A 4 c i Stationary		1,78	1,89	1,95	1,90	NO	NE	NE	NE	0,08	0,04	0,03	0,04	0,09	0,04	1,66	0,04	0,07
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		20,82	21,07	4,65	0,38	0,00	NE	NE	NE	0,00	0,00			0,02	0,67	0,03	0,00	0,39
1 A 4 c iii		1 A 4 c iii National Fishing		11,13	1,55	0,52	0,80	0,00	NE	NE	NE	0,02	0,00	0,01	0,01	0,01	0,01	0,03	0,04	0,10
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,30	0,65	0,15	0,04	0,00	NE	NE	NE	0,12	0,00			0,00	0,11	0,00	0,00	0,06
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	27,36	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	4,56	1,44	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	1,92	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,41	NA	NA	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,21	1,42	0,62	0,07	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0.10	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A																		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0.42	NE	NE	NE	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0.05	NE	0.04	0.00	0.01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	0.44	0.04	0.06	NE	0.00	0.05	0.11	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A																		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0.50	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)																		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	23.66			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.24	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	12.96	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	17.75	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	7.77	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.12	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.01	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.01	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	43.14	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.81	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	5.13	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting							
			Main Pollutants					Particulate matter			Priority metals		Other metals							
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A							NE	NE	NE								
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,22	NO		28,43	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		243,17	633,57	142,71	75,17	110,41	0,00	0,00	0,00	7,13	0,77	2,09	0,83	2,63	9,46	17,21	2,68	23,27

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,98	0,59	0,12	0,01	0,00	NE	NE	NE	0,14	0,00		0,00	0,12	0,00	0,00	0,07	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7,70	1,03	0,23	0,06		NE	NE	NE		0,01		0,03	1,05	0,04	0,01	0,62	
1 A 3 d i	(a)	International Navigation		120,99	10,29	3,24	59,86		NE	NE	NE	0,20	0,03	0,05	0,37	0,16	0,37	19,82	0,41	0,96
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1999 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																			
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)					
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benzo(a) fluoranthene	benzo(b) fluoranthene	fluoranthene benzo(k)	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,04	0,02	0,01	0,08	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,01	0,05	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 a (i)	1 A 3 a (i) Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,02	0,07	0,01	0,00	0,10	NO	
1 A 3 a (ii)	1 A 3 a (ii) Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,03	0,03	0,03	0,03	0,11	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,01	0,01	0,01	0,05	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles																		0,00	0,02	0,03	0,01	0,06	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles																		0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation																						0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear																						0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion																						0,00	NO
1 A 3 c	1 A 3 c Railways																		0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation																		0,00	0,00	0,00	0,00	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)																						0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors																						0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery																						0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional																		0,09	0,12	0,04	0,07	0,32	NO
1 A 4 b	1 A 4 b Residential																						0,00	NO
1 A 4 b i	1 A 4 b i Residential plants																		2,02	2,64	0,88	1,43	6,97	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)																		0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing																						0,00	NO
1 A 4 c i	1 A 4 c i Stationary																		0,11	0,12	0,03	0,12	0,38	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery																		0,00	0,01	0,01	0,00	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing																		0,00	0,01	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)																						0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)																		0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels																						0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling																						0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation																						0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)																						0,00	NO
1 B 2	1 B 2 Oil and natural gas																						0,00	NO

2 G	2 G OTHER (Please specify in a covering note)																		0,00	NO
3 A	3 A PAINT APPLICATION																		0,00	NO
3 B	3 B DEGREASING AND DRY CLEANING																		0,00	NO
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING																		0,00	NO
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)																		0,00	NO
4 B	4 B MANURE MANAGEMENT (b)																		0,00	NO
4 B 1	4 B 1 Cattle																		0,00	NO
4 B 1 a	4 B 1 a Dairy																		0,00	NO
4 B 1 b	4 B 1 b Non-Dairy																		0,00	NO
4 B 2	4 B 2 Buffalo																		0,00	NO
4 B 3	4 B 3 Sheep																		0,00	NO
4 B 4	4 B 4 Goats																		0,00	NO
4 B 5	4 B 5 Camels and Llamas																		0,00	NO
4 B 6	4 B 6 Horses																		0,00	NO
4 B 7	4 B 7 Mules and Asses																		0,00	NO
4 B 8	4 B 8 Swine																		0,00	NO
4 B 9	4 B 9 Poultry																		0,00	NO
4 B 13	4 B 13 Other																		0,00	NO
4 C	4 C RICE CULTIVATION																		0,00	NO
4 D	4 D AGRICULTURAL SOILS																		0,00	NO
4 D 1	4 D 1 Direct Soil Emission																		0,00	NO
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES																		0,00	NO
4 G	4 G OTHER (c)																		0,00	NO
5 B	5 B FOREST AND GRASSLAND CONVERSION																		0,00	NO
6 A	6 A SOLID WASTE DISPOSAL ON LAND																		0,00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,30	3,09	1,08	1,71	8,18	NO

<i>Memo Items</i>																							
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,04	0,08	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I.

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 1999 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		51,92	10,99	4,12	35,87	NO	NE	NE	NE	2,87	0,30	1,53	0,46	1,39	1,35	4,26	1,51	11,48
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,56	0,27	0,01	0,53	NO	NE	NE	NE	0,03	0,01	0,00	0,02	0,04	0,01	0,70	0,01	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		5,89	0,67	0,05	0,01	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	18,04	13,91	3,78	7,03	0,00	NE	NE	NE	0,27	0,16	0,09	0,15	0,32	0,53	5,71	0,13	1,12
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE									0,62	0,01	NE	0,03	0,09	NE	0,11	0,43	0,43
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE									0,01	0,00	NE	NE		0,00	NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals	IE																	
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE																	
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE																	
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		9,35	3,47	0,10	1,59	0,27	NE	NE	NE	0,59	0,04	0,16	0,07	0,36	0,11	0,32	0,24	0,17
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,30	0,81	0,14	0,00	0,00	NE	NE	NE	1,39	0,00			0,00	0,03	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,52	0,13	0,02	0,00	0,00	NE	NE	NE	0,00	0,00	0,00	0,00	0,00	0,06	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A						NE	NE	NE									

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
I A 3 b i		I A 3 b i R.T., Passenger cars		41,09	297,45	26,73	0,29	2,05	NE	NE	NE		0,06	0,02	NE	NE	0,10	3,47	0,14	0,02	2,04
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,14	18,46	2,07	0,29	0,04	NE	NE	NE		0,00	0,01	NE	NE	0,03	0,99	0,04	0,01	0,59
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		29,21	7,45	3,32	0,51	0,01	NE	NE	NE		0,00	0,01	NE	NE	0,05	1,57	0,06	0,01	0,92
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,14	3,34	0,00	0,00	NE	NE	NE		0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	13,62	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		3,73	0,72	0,28	0,04	0,00	NE	NE	NE		0,00	0,00			0,00	0,12	0,01	0,00	0,07
I A 3 d ii		I A 3 d ii National Navigation		7,69	18,72	10,65	1,72	0,00	NE	NE	NE		0,02	0,00	0,00	0,02	0,01	0,09	1,06	0,03	0,11
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A						NE	NE	NE										
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NE	NE	NE		IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NE	NE	NE		NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,33	0,88	0,50	0,48	NO	NE	NE	NE		0,23	0,03	0,10	0,02	0,07	0,06	0,40	0,03	0,68
I A 4 b	(a)	I A 4 b Residential	A						NE	NE	NE										
I A 4 b i		I A 4 b i Residential plants		5,03	121,18	9,45	2,03	NO	NE	NE	NE		0,14	0,09	0,15	0,04	0,04	0,13	0,06	0,17	2,03
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	47,90	4,19	0,00	0,00	NE	NE	NE		0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

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HM should cover the timespan from 1990 to latest year.

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Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A						NE	NE	NE									
1 A 4 c i		1 A 4 c i Stationary		1,68	1,72	1,92	1,66	NO	NE	NE	NE	0,07	0,04	0,03	0,04	0,09	0,04	1,55	0,04	0,09
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		20,58	20,93	4,60	0,38	0,00	NE	NE	NE	0,00	0,00			0,02	0,66	0,03	0,00	0,39
1 A 4 c iii		1 A 4 c iii National Fishing		11,16	2,57	1,11	0,78	0,00	NE	NE	NE	0,02	0,00	0,01	0,01	0,01	0,01	0,01	0,04	0,10
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)							NE	NE	NE									
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,96	0,72	0,13	0,02	0,00	NE	NE	NE	0,08	0,00	0,00	0,00	0,00	0,10	0,00	0,00	0,06
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A						NE	NE	NE									
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	24,16	NA	NA	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A						NE	NE	NE									
1 B 2 a	(a)	1 B 2 a Oil	A						NE	NE	NE									
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	4,56	1,36	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	1,49	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,42	0,00	NA	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		4,81	3,11	1,35	0,05	NO	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA

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NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A								NE	NE	NE								
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0,06	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A							NE	NE	NE									
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0,45	NE	NE	NE	0,02	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0,05	NE	0,04	0,00	0,01	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	NE	NE	NE	0,73	0,01	0,05	NE	0,00	0,05	0,09	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A						NE	NE	NE										
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0,51	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)						NE	NE	NE										

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NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	23.44			NE	NE	NE									
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.19	NO		NE	NE	NE									
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	12.90	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A						NE	NE	NE									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NE	NE	NE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	16.86	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	7.63	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.11	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.01	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.04	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	42.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.95	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.55	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		

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NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,19	NO		25,68	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NO	NO	NO	NO	NO	NO		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO		
		National Total		225,81	609,36	138,25	54,66	105,26	0,00	0,00	0,00	7,12	0,73	2,13	0,85	2,63	9,48	14,56	2,67	23,15

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,04	0,61	0,11	0,01	0,00	NE	NE	NE	0,12	0,00	0,00	0,00	0,00	0,12	0,01	0,00	0,07
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		8,19	1,08	0,24	0,07	0,00	NE	NE	NE	0,00	0,01	0,00	0,00	0,03	1,11	0,05	0,01	0,65
1 A 3 d i	(a)	International Navigation		113,83	9,68	3,04	60,34		NE	NE	NE	0,20	0,03	0,04	0,38	0,16	0,38	20,97	0,40	0,93
5 E	(a)	5 E Other							NE	NE	NE									
X		X (11 08 Volcanoes)							NE	NE	NE									

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

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TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 2000 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	I-Teq	DIOX	PAH				Total 1-4
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	Mg	pyrene benzo(a) fluoranthene	benzo(b) fluoranthene	fluoranthene benzo(k)	pyrene (1,2,3,4-d) Indeno	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.01	0.04	0.01	0.01	0.07	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.02	0.02	0.01	0.05	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.07	0.01	0.00	0.10	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.00	0.00	0.00	0.00	0.00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0.00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.03	0.02	0.03	0.09	NO	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0.02	0.02	0.02	0.02	0.07	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,05	NO
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,10	0,13	0,04	0,07	0,34	NO
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	2,39	3,12	1,04	1,68	8,24	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,13	0,15	0,04	0,17	0,49	NO
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,03	NO
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	NO
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO					0,00	NO

1 B 2 a	1 B 2 a Oil		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
1 B 2 a iv	1 B 2 a iv Refining / Storage		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
1 B 2 a v	1 B 2 a v Distribution of oil products		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
1 B 2 a vi	1 B 2 a vi Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
1 B 2 b	1 B 2 b Natural gas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
1 B 2 c	1 B 2 c Venting and flaring		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A	2 A MINERAL PRODUCTS (a)	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
2 A 1	2 A 1 Cement Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A 2	2 A 2 Lime Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A 3	2 A 3 Limestone and Dolomite Use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A 4	2 A 4 Soda Ash Production and use		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A 5	2 A 5 Asphalt Roofing		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A 6	2 A 6 Road Paving with Asphalt		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 B	2 B CHEMICAL INDUSTRY	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 B 2	2 B 2 Nitric Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 B 5	2 B 5 Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 C	2 C METAL PRODUCTION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 D	2 D OTHER PRODUCTION (a)	A	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 D 1	2 D 1 Pulp and Paper		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			
2 D 2	2 D 2 Food and Drink		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO			

2 G	2 G OTHER (Please specify in a covering note)																			0.00	NO
3 A	3 A PAINT APPLICATION																			0.00	NO
3 B	3 B DEGREASING AND DRY CLEANING																			0.00	NO
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING																			0.00	NO
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)																			0.00	NO
4 B	4 B MANURE MANAGEMENT (b)																			0.00	NO
4 B 1	4 B 1 Cattle																			0.00	NO
4 B 1 a	4 B 1 a Dairy																			0.00	NO
4 B 1 b	4 B 1 b Non-Dairy																			0.00	NO
4 B 2	4 B 2 Buffalo																			0.00	NO
4 B 3	4 B 3 Sheep																			0.00	NO
4 B 4	4 B 4 Goats																			0.00	NO
4 B 5	4 B 5 Camels and Llamas																			0.00	NO
4 B 6	4 B 6 Horses																			0.00	NO
4 B 7	4 B 7 Mules and Asses																			0.00	NO
4 B 8	4 B 8 Swine																			0.00	NO
4 B 9	4 B 9 Poultry																			0.00	NO
4 B 13	4 B 13 Other																			0.00	NO
4 C	4 C RICE CULTIVATION																			0.00	NO
4 D	4 D AGRICULTURAL SOILS																			0.00	NO
4 D 1	4 D 1 Direct Soil Emission																			0.00	NO
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES																			0.00	NO
4 G	4 G OTHER (c)																			0.00	NO
5 B	5 B FOREST AND GRASSLAND CONVERSION																			0.00	NO
6 A	6 A SOLID WASTE DISPOSAL ON LAND																			0.00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	2,70	3,61	1,23	2,01	9,55	NO

<i>Memo Items</i>																							
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,03	0,07	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 2000 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants				Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		43,27	10,37	3,91	12,10	NO	999,04	805,38	676,11	3,02	0,19	0,57	0,54	0,44	0,58	2,08	0,89	12,26
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,39	0,25	0,00	0,61	NO	142,25	129,02	122,40	0,03	0,02	0,01	0,02	0,04	0,02	0,85	0,02	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		6,24	0,71	0,05	0,01	NO	2,61	2,53	2,52	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	16,56	13,81	3,77	6,75	0,00	1415,25	1257,88	1125,79	0,27	0,16	0,09	0,15	0,33	0,53	5,84	0,13	1,11
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE	IE	IE	IE	IE	IE	192,80	57,84	8,68	0,69	0,01	NE	0,03	0,11	NE	0,13	0,48	0,48
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE	IE	IE	IE	IE	IE	34,28	30,86	14,15	0,01	0,00	NE	NE	NE	0,00	NE	NE	0,00
1 A 2 c	(a)	1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		10,34	4,02	0,10	1,16	0,23	529,60	465,40	269,36	0,36	0,04	0,16	0,07	0,39	0,12	0,34	0,36	0,19
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,27	0,78	0,14	0,00	0,00	1,69	1,69	1,69	1,37	0,00			0,00	0,03	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,46	0,11	0,01	0,00	0,00	1,71	1,71	1,71	0,00	0,00	0,00	0,00	0,00	0,06	0,00	0,00	0,03
1 A 3 b	(a)	1 A 3 b Road Transportation	A																	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		37,33	274,09	23,78	0,20	2,16	733,34	733,34	733,34	0,05	0,02	NE	NE	0,10	3,45	0,14	0,02	2,03
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,06	17,67	2,00	0,06	0,05	1765,52	1765,52	1765,52	0,00	0,01	NE	NE	0,03	1,00	0,04	0,01	0,59
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		27,02	6,95	3,11	0,09	0,01	1416,32	1416,32	1416,32	0,00	0,01	NE	NE	0,04	1,52	0,06	0,01	0,89
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,27	3,20	0,00	0,00	54,09	54,09	54,09	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	9,53	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	1342,77	1007,93	548,00	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	953,03	476,51	257,32	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		3,73	0,69	0,25	0,01	0,00	140,57	140,57	140,57	0,00	0,00			0,00	0,12	0,01	0,00	0,07
I A 3 d ii		I A 3 d ii National Navigation		7,79	19,91	11,34	1,65	0,00	524,35	499,30	475,50	0,02	0,00	0,00	0,02	0,01	0,10	1,12	0,03	0,12
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A																	
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,04	0,81	0,50	0,33	NO	137,65	131,54	122,45	0,18	0,02	0,04	0,02	0,02	0,03	0,23	0,03	0,16
I A 4 b	(a)	I A 4 b Residential	A																	
I A 4 b i		I A 4 b i Residential plants		4,94	141,48	10,85	1,75	NO	3105,69	2953,77	2795,00	0,13	0,10	0,15	0,04	0,03	0,13	0,05	0,14	2,27
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	47,60	4,16	0,00	0,00	25,97	25,97	25,97	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A																	
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,54	1,63	1,98	1,61	NO	141,66	113,38	92,34	0,06	0,03	0,03	0,03	0,07	0,03	1,15	0,03	0,09
1 A 4 c iii		1 A 4 c iii National Fishing		20,33	20,79	4,56	0,38	0,00	2056,17	1953,99	1857,95	0,00	0,00		0,02	0,66	0,03	0,00	0,39	
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		11,16	2,68	1,18	0,78	0,00	355,87	338,16	321,34	0,02	0,00	0,01	0,01	0,01	0,01	0,01	0,04	0,10
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,51	0,40	0,06	0,01	0,00	18,58	18,58	18,58	0,11	0,00	0,00	0,00	0,00	0,06	0,00	0,00	0,04
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	21,78	NA	NA	NO	962,25	384,90	38,49	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A																	
1 B 2 a	(a)	1 B 2 a Oil	A																	
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	4,98	0,98	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	1,05	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,42	0,00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		3,12	2,02	0,88	0,05	NO	2,69	2,69	2,69	NA	NA	NA	NA	NA	NA	NA	NA	NA

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0,04	NE	NE	191,00	47,75	7,64	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A																		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0,41	NE	NE	NE	0,01	362,00	290,00	217,00	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0,04	NE	0,03	0,00	0,01	19,00	15,20	11,40	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	41,00	39,00	25,00	0,51	0,02	0,09	NE	0,00	0,05	0,06	2,02		
2 D	(a)	2 D OTHER PRODUCTION (b) A																		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0,47	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)																		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	23.22														
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.14	NO													
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	12.64	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (c)	A																	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	17.20	612.39	275.56	61.26	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	7.90	1187.55	534.37	118.80	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.12	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.01	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.03	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	40.59	11592.54	5216.88	1158.78	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	5.01	2674.54	1203.91	267.24	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.68	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,19	NO		25,70	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
		National Total		207,88	601,80	131,55	28,54	104,73	33735,75	22391,53	14754,98	6,85	0,65	1,16	0,92	1,64	8,57	12,13	2,19	22,90

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,08	0,64	0,12	0,01	0,00	3,95	3,95	3,95	0,12	0,00	0,00	0,00	0,00	0,13	0,01	0,00	0,08
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		8,39	1,11	0,25	0,07	0,00	33,96	33,96	33,96	0,00	0,01	0,00	0,00	0,03	1,14	0,05	0,01	0,67
1 A 3 d i	(a)	International Navigation		117,15	9,96	3,13	65,17		7613,72	7233,03	6871,38	0,22	0,03	0,04	0,43	0,18	0,43	24,36	0,43	1,00
5 E	(a)	5 E Other																		
X		X (11 08 Volcanoes)																		

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 2001 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	4,7	0,01	0,04	0,02	0,01	0,08	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,02	0,02	0,01	0,05	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,46						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,4						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,004						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 3 a i (i)	1 A 3 a i Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,07	0,02	0,08	0,00	0,00	0,11	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,2						0,00	NO
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,02	0,02	0,02	0,02	0,08	NO	
		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,02	0,02	0,01	0,01	0,06	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,02	0,00	0,05	NO		
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO		
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,007	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,3	0,00	0,00	0,00	0,00	0,00	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,11	0,14	0,05	0,08	0,37	0,00	NO	
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	18,85	2,62	3,43	1,14	1,85	9,03	NO	
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	3,3	0,00	0,00	0,00	0,00	0,00	NO	
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,13	0,15	0,03	0,18	0,49	0,00	NO	
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,02	0,02	NO	
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	0,02	NO	
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO	
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO	

1 B 2 a	1 B 2 a Oil																			0,00	NO						
1 B 2 a i	1 B 2 a i Exploration Production, Transport																			0,00	NO						
1 B 2 a iv	1 B 2 a iv Refining / Storage																			0,00	NO						
1 B 2 a v	1 B 2 a v Distribution of oil products																			0,00	NO						
1 B 2 a vi	1 B 2 a vi Other																			0,00	NO						
1 B 2 b	1 B 2 b Natural gas																			0,00	NO						
1 B 2 c	1 B 2 c Venting and flaring																			0,00	NO						
2 A	2 A MINERAL PRODUCTS (a)																		0,00	0,00	0,00	0,00	0,00	NO			
2 A 1	2 A 1 Cement Production																			0,00	NO						
2 A 2	2 A 2 Lime Production																			0,8				0,00	NO		
2 A 3	2 A 3 Limestone and Dolomite Use																							0,00	NO		
2 A 4	2 A 4 Soda Ash Production and use																							0,00	NO		
2 A 5	2 A 5 Asphalt Roofing																							0,00	NO		
2 A 6	2 A 6 Road Paving with Asphalt																							0,00	NO		
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																			0,041					0,00	NO	
2 B	2 B CHEMICAL INDUSTRY																							0,16		0,00	NO
2 B 1	2 B 1 Ammonia Production																								0,00	NO	
2 B 2	2 B 2 Nitric Acid Production																								0,00	NO	
2 B 3	2 B 3 Adipic Acid Production																								0,00	NO	
2 B 4	2 B 4 Carbide Production																								0,00	NO	
2 B 5	2 B 5 Other (Please specify in a covering note)																								0,00	NO	
2 C	2 C METAL PRODUCTION																								0,00	NO	
2 D	2 D OTHER PRODUCTION (a)																								0,00	NO	
2 D 1	2 D 1 Pulp and Paper																								0,00	NO	
2 D 2	2 D 2 Food and Drink																								0,00	NO	
																									0,00	NO	

2 G	2 G OTHER (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 A	3 A PAINT APPLICATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 B	3 B DEGREASING AND DRY CLEANING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	13,25	NO	0,00	NO
4 B	4 B MANURE MANAGEMENT (b)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 1	4 B 1 Cattle	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 1 a	4 B 1 a Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 1 b	4 B 1 b Non-Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 2	4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 3	4 B 3 Sheep	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 4	4 B 4 Goats	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 5	4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 6	4 B 6 Horses	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 7	4 B 7 Mules and Asses	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 8	4 B 8 Swine	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 9	4 B 9 Poultry	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 B 13	4 B 13 Other	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 C	4 C RICE CULTIVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 D	4 D AGRICULTURAL SOILS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 D 1	4 D 1 Direct Soil Emission	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
4 G	4 G OTHER (c)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
5 B	5 B FOREST AND GRASSLAND CONVERSION	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO
6 A	6 A SOLID WASTE DISPOSAL ON LAND	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	5,15	NO	0,00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,002					0,00	NO
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	17,7					0,00	NO
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25					0,00	NO
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	78	2,94	3,93	1,32	2,19	10,39	NO

<i>Memo Items</i>																					
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,01	0,02	0,01	0,03	0,06	0,06	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 2001 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
			NOx	CO	NMVOc	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		43,71	11,40	4,25	10,39	NO	1120,81	885,92	736,86	2,30	0,22	0,62	0,45	0,45	0,65	2,07	0,62	13,52
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,72	0,28	0,01	0,60	NO	149,82	135,39	128,17	0,03	0,02	0,01	0,02	0,05	0,02	0,93	0,02	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		6,09	0,69	0,05	0,01	NO	2,55	2,47	2,46	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	16,20	13,96	3,76	6,18	0,00	1335,55	1191,48	1072,74	0,24	0,15	0,09	0,13	0,28	0,51	4,98	0,11	1,16
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE	IE	IE	IE	IE	IE	171,40	51,42	7,71	0,62	0,01	NE	0,03	0,09	NE	0,11	0,43	0,43
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE	IE	IE	IE	IE	IE	34,68	31,23	14,31	0,01	0,00	NE	NE	NE	0,00	NE	NE	0,00
1 A 2 c	(a)	1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		10,19	2,95	0,09	1,66	0,19	563,95	495,37	286,29	0,20	0,04	0,17	0,07	0,40	0,12	0,35	0,29	0,16
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,27	0,78	0,14	0,00	0,00	1,68	1,68	1,68	1,34	0,00		0,00	0,03	0,00	0,00	0,00	0,02
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,51	0,12	0,02	0,00	0,00	1,89	1,89	1,89	0,00	0,00	0,00	0,00	0,00	0,06	0,00	0,00	0,04
1 A 3 b	(a)	1 A 3 b Road Transportation	A																	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		33,75	267,41	21,76	0,20	2,27	693,63	693,63	693,63	0,05	0,02	NE	NE	0,10	3,44	0,14	0,02	2,02
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		9,98	16,60	1,94	0,06	0,05	1702,94	1702,94	1702,94	0,00	0,01	NE	NE	0,03	1,01	0,04	0,01	0,60
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		26,53	6,72	2,99	0,09	0,01	1331,86	1331,86	1331,86	0,00	0,01	NE	NE	0,05	1,54	0,06	0,01	0,91
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,09	11,80	2,57	0,00	0,00	45,55	45,55	45,55	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	7,77	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	1347,26	1010,06	549,93	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	951,18	475,59	256,82	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		3,40	0,64	0,25	0,01	0,00	125,36	125,36	125,36	0,00	0,00			0,00	0,11	0,00	0,00	0,07
I A 3 d ii		I A 3 d ii National Navigation		7,63	19,89	11,33	1,39	0,00	519,61	494,79	471,21	0,02	0,00	0,00	0,02	0,01	0,10	1,12	0,03	0,12
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A																	
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,05	0,84	0,54	0,25	NO	143,36	138,43	130,09	0,17	0,02	0,03	0,01	0,02	0,02	0,15	0,02	0,19
I A 4 b	(a)	I A 4 b Residential	A																	
I A 4 b i		I A 4 b i Residential plants		5,13	151,34	11,28	1,68	NO	3156,26	3003,04	2840,89	0,14	0,11	0,16	0,04	0,03	0,14	0,04	0,15	2,47
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	47,60	4,16	0,00	0,00	25,97	25,97	25,97	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
				Main Pollutants					Particulate matter			Priority metals			Other metals						
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A																		
1 A 4 c i		1 A 4 c i Stationary																			
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,48	1,46	1,66	1,60	NO		130,33	104,70	85,11	0,06	0,03	0,03	0,03	0,06	0,03	1,07	0,03	0,09
1 A 4 c iii		1 A 4 c iii National Fishing		20,25	20,79	4,55	0,38	0,00		2046,84	1945,14	1849,53	0,00	0,00			0,02	0,66	0,03	0,00	0,39
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		10,58	1,43	0,47	0,74	0,00		333,72	317,05	301,22	0,02	0,00	0,01	0,01	0,01	0,01	0,01	0,04	0,09
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,61	0,30	0,07	0,00	0,00		39,27	39,27	39,27	0,09	0,00	0,00	0,00	0,00	0,05	0,00	0,00	0,03
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A																		
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	23,51	NA	NA	NO		1038,60	415,44	41,54	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A																		
1 B 2 a	(a)	1 B 2 a Oil	A																		
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO		4,34	0,67	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO		1,03	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas																			
1 B 2 c	(a)	1 B 2 c Venting and flaring		0,00	NA		0,44	0,00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
				3,35	2,17	0,95	0,05	NO		2,19	2,19	2,19	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0.02	NE	NE	189.00	47.25	7.56	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A																		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0.41	NE	NE	NE	0.03	346.00	277.00	208.00	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0.02	NE	0.03	0.00	0.07	19.00	15.20	11.40	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA	93.00	88.00	56.00	0.94	0.04	0.18	NE	0.00	0.05	0.12	3.42		
2 D	(a)	2 D OTHER PRODUCTION (b) A																		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0.45	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)																		

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HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	23.22														
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.14	NO													
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	12.64	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (e)	A																	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	16.81	600.67	270.29	60.09	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	8.25	1236.83	556.55	123.73	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.13	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.01	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.03	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	40.76	12259.58	5517.06	1225.45	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	5.03	2630.22	1183.97	262.81	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.80	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

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Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting							
			Main Pollutants					Particulate matter			Priority metals		Other metals							
			NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,21	NO		24,44	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
		National Total		203,19	602,69	126,11	25,97	103,90	34390,53	22623,16	14700,27	6,23	0,68	1,30	0,80	1,61	8,63	11,24	1,78	25,75

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,07	0,63	0,11	0,01	0,00	3,91	3,91	3,91	0,11	0,00	0,00	0,00	0,00	0,13	0,01	0,00	0,08
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		8,53	1,13	0,27	0,07	0,00	34,50	34,50	34,50	0,00	0,01	0,00	0,00	0,03	1,15	0,05	0,01	0,68
1 A 3 d i	(a)	International Navigation		98,72	8,40	2,64	54,37		6099,24	5794,28	5504,57	0,18	0,02	0,04	0,34	0,15	0,34	19,05	0,35	0,82
5 E	(a)	5 E Other																		
X		X (11 08 Volcanoes)																		

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 1B: National sector emissions: Persistent organic pollutants
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 2002 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.
You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP		Yearly minimum reporting																		
		ANNEX I (1)									ANNEX II (2)					ANNEX III (3)				
		Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	PAH				Total 1-4	HCB
kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	
1 A 1 a	1 A 1 a Public Electricity and Heat Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	4,7	0,01	0,04	0,02	0,01	0,08	NO	
1 A 1 b	1 A 1 b Petroleum refining	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other Energy Industries	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 2	1 A 2 Manufacturing Industries and Construction	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,02	0,02	0,01	0,06	NO	
1 A 2 a	1 A 2 a Iron and Steel	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,46						0,00	NO
1 A 2 b	1 A 2 b Non-ferrous Metals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,4						0,00	NO
1 A 2 c	1 A 2 c Chemicals	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,004						0,00	NO
1 A 2 d	1 A 2 d Pulp, Paper and Print	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 2 f	1 A 2 f Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,07	0,02	0,08	0,00	0,00	0,11	NO	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b	1 A 3 b Road Transportation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO							0,00	NO
1 A 3 b i	1 A 3 b i R.T., Passenger cars	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,2						0,00	NO
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,03	0,03	0,03	0,03	0,11	NO	
		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		0,01	0,01	0,01	0,01	0,05	NO	

1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,03	0,00	0,05	NO	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 A 3 b v	1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 c	1 A 3 c Railways	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,007	0,00	0,00	0,00	0,00	0,00	NO
1 A 3 d ii	1 A 3 d ii National Navigation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	1,3	0,00	0,00	0,00	0,00	0,01	NO
1 A 3 e	1 A 3 e Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 e i	1 A 3 e i Pipeline compressors	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 3 e ii	1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 a	1 A 4 a Commercial / Institutional	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,16	0,22	0,07	0,12	0,57	NO	
1 A 4 b	1 A 4 b Residential	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 b i	1 A 4 b i Residential plants	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	18,85	2,53	3,32	1,11	1,79	8,75	NO
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	3,3	0,00	0,00	0,00	0,00	0,00	NO
1 A 4 c	1 A 4 c Agriculture / Forestry / Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 4 c i	1 A 4 c i Stationary	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,11	0,12	0,03	0,13	0,38	NO	
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,01	0,00	0,02	NO	
1 A 4 c iii	1 A 4 c iii National Fishing	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,01	0,00	0,01	0,02	NO	
1 A 5 a	1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 A 5 b	1 A 5 b Other, Mobile (Including military)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	NO	
1 B1	1 B1 Fugitive Emissions from Solid Fuels	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 a	1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 b	1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 1 c	1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
1 B 2	1 B 2 Oil and natural gas	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO

1 B 2 a	1 B 2 a Oil																					0,00	NO		
1 B 2 a i	1 B 2 a i Exploration Production, Transport																						0,00	NO	
1 B 2 a iv	1 B 2 a iv Refining / Storage																						0,00	NO	
1 B 2 a v	1 B 2 a v Distribution of oil products																						0,00	NO	
1 B 2 a vi	1 B 2 a vi Other																						0,00	NO	
1 B 2 b	1 B 2 b Natural gas																						0,00	NO	
1 B 2 c	1 B 2 c Venting and flaring																						0,00	NO	
2 A	2 A MINERAL PRODUCTS (a)																						0,00	NO	
2 A 1	2 A 1 Cement Production																						0,00	NO	
2 A 2	2 A 2 Lime Production																						0,8	0,00	NO
2 A 3	2 A 3 Limestone and Dolomite Use																							0,00	NO
2 A 4	2 A 4 Soda Ash Production and use																							0,00	NO
2 A 5	2 A 5 Asphalt Roofing																							0,00	NO
2 A 6	2 A 6 Road Paving with Asphalt																							0,00	NO
2 A 7	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)																						0,041	0,00	NO
2 B	2 B CHEMICAL INDUSTRY																						0,16	0,00	NO
2 B 1	2 B 1 Ammonia Production																							0,00	NO
2 B 2	2 B 2 Nitric Acid Production																							0,00	NO
2 B 3	2 B 3 Adipic Acid Production																							0,00	NO
2 B 4	2 B 4 Carbide Production																							0,00	NO
2 B 5	2 B 5 Other (Please specify in a covering note)																							0,00	NO
2 C	2 C METAL PRODUCTION																							0,00	NO
2 D	2 D OTHER PRODUCTION (a)																							0,00	NO
2 D 1	2 D 1 Pulp and Paper																							0,00	NO
2 D 2	2 D 2 Food and Drink																							0,00	NO

2 G	2 G OTHER (Please specify in a covering note)																			0,00	NO		
3 A	3 A PAINT APPLICATION																			0,00	NO		
3 B	3 B DEGREASING AND DRY CLEANING																			0,00	NO		
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING																			0,00	NO		
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)																			0,00	NO		
4 B	4 B MANURE MANAGEMENT (b)																			13,25	0,00	NO	
4 B 1	4 B 1 Cattle																				0,00	NO	
4 B 1 a	4 B 1 a Dairy																				0,00	NO	
4 B 1 b	4 B 1 b Non-Dairy																				0,00	NO	
4 B 2	4 B 2 Buffalo																				0,00	NO	
4 B 3	4 B 3 Sheep																				0,00	NO	
4 B 4	4 B 4 Goats																				0,00	NO	
4 B 5	4 B 5 Camels and Llamas																				0,00	NO	
4 B 6	4 B 6 Horses																				0,00	NO	
4 B 7	4 B 7 Mules and Asses																				0,00	NO	
4 B 8	4 B 8 Swine																				0,00	NO	
4 B 9	4 B 9 Poultry																				0,00	NO	
4 B 13	4 B 13 Other																				0,00	NO	
4 C	4 C RICE CULTIVATION																				0,00	NO	
4 D	4 D AGRICULTURAL SOILS																				0,00	NO	
4 D 1	4 D 1 Direct Soil Emission																				0,00	NO	
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES																				0,00	NO	
4 G	4 G OTHER (c)																				0,00	NO	
5 B	5 B FOREST AND GRASSLAND CONVERSION																				0,00	NO	
6 A	6 A SOLID WASTE DISPOSAL ON LAND																				5,15	0,00	NO

6 B	6 B WASTEWATER HANDLING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,002					0,00	NO
6 C	6 C WASTE INCINERATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	17,7					0,00	NO
6 D	6 D OTHER WASTE (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25					0,00	NO
	National Total		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	78	2,89	3,87	1,33	2,13	10,22	NO

<i>Memo Items</i>																					
1 a 3 a i (i)	International Aviation (LTO)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 a i (ii)	International Aviation (Cruise)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,00	0,00	0,00	0,00	0,00	NO
1 a 3 d i	International Marine (b)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	0,02	0,01	0,03	0,06	0,06	NO
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO						0,00	NO
X	X (11 08 Volcanoes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO

- (a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste incineration for energy (this is included in 1 A 1);
(e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I.

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex III.

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 11.02.2004 (as DD.MM.YYYY)
YEAR: 2002 (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx Gg NO ₂	CO Gg	NMVOOC Gg	SOx Gg SO ₂	NH3 Gg	TSP Mg	PM10 Mg	PM2.5 Mg	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		44,96	11,53	4,24	9,94	NO	1187,44	942,70	778,29	2,30	0,21	0,66	0,40	0,47	0,63	3,65	0,71	13,63
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,55	0,26	0,00	0,93	NO	142,10	128,47	121,66	0,03	0,02	0,01	0,02	0,05	0,02	0,87	0,02	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		6,55	0,75	0,05	0,01	NO	2,76	2,66	2,65	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	A	16,18	14,80	3,88	5,83	0,00	1314,75	1160,34	1039,63	0,26	0,18	0,11	0,13	0,30	0,54	5,32	0,12	1,67
1 A 2 a	(a)	1 A 2 a Iron and Steel	IE	IE	IE	IE	IE	IE	174,60	52,38	7,86	0,63	0,01	NE	0,03	0,10	NE	0,11	0,44	0,44
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals	IE	IE	IE	IE	IE	IE	32,65	29,40	13,48	0,01	0,00	NE	NE	NE	0,00	NE	NE	0,00
1 A 2 c	(a)	1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		9,32	1,18	0,10	1,00	0,13	441,91	383,89	234,62	0,20	0,04	0,17	0,07	0,40	0,12	0,35	0,29	0,16
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,23	0,76	0,13	0,00	0,00	1,55	1,55	1,55	1,33	0,00		0,00	0,02	0,00	0,00	0,00	0,01
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,44	0,11	0,02	0,00	0,00	1,67	1,67	1,67	0,00	0,00	0,00	0,00	0,00	0,06	0,00	0,00	0,03
1 A 3 b	(a)	1 A 3 b Road Transportation	A																	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
I A 3 b i		I A 3 b i R.T., Passenger cars		32,43	247,45	19,80	0,20	2,31	723,49	723,49	723,49	0,05	0,02	NE	NE	0,10	3,48	0,14	0,02	2,05
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,15	16,45	1,91	0,06	0,06	1564,34	1564,34	1564,34	0,00	0,01	NE	NE	0,03	1,06	0,04	0,01	0,62
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		24,06	6,17	2,74	0,09	0,01	1166,66	1166,66	1166,66	0,00	0,01	NE	NE	0,04	1,51	0,06	0,01	0,89
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,11	13,84	2,90	0,00	0,00	53,18	53,18	53,18	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation		NO	NO	7,46	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear		NO	NO	NO	NO	NO	1371,20	1027,77	559,72	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion		NO	NO	NO	NO	NO	962,14	481,07	259,78	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 3 c	(a)	I A 3 c Railways		3,39	0,64	0,25	0,01	0,00	124,95	124,95	124,95	0,00	0,00			0,00	0,11	0,00	0,00	0,07
I A 3 d ii		I A 3 d ii National Navigation		8,64	20,02	11,37	2,02	0,00	604,09	575,05	547,46	0,02	0,00	0,01	0,03	0,02	0,10	1,52	0,04	0,13
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A																	
I A 3 e i		I A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
I A 3 e ii		I A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,08	0,91	0,75	0,55	NO	203,70	195,34	180,80	0,05	0,01	0,04	0,02	0,02	0,02	0,23	0,02	0,19
I A 4 b	(a)	I A 4 b Residential	A																	
I A 4 b i		I A 4 b i Residential plants		4,91	147,05	10,96	1,79	NO	3096,18	2936,18	2770,17	0,13	0,11	0,16	0,04	0,04	0,14	0,12	0,14	2,38
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	47,60	4,16	0,00	0,00	25,97	25,97	25,97	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A																	
1 A 4 c i		1 A 4 c i Stationary																		
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		1,46	1,48	1,66	1,28	NO	114,65	91,70	75,27	0,05	0,02	0,02	0,02	0,05	0,03	0,89	0,03	0,08
1 A 4 c iii		1 A 4 c iii National Fishing		19,97	20,78	4,51	0,38	0,00	2012,45	1912,46	1818,47	0,00	0,00		0,02	0,66	0,03	0,00	0,39	
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		11,04	1,50	0,49	0,78	0,00	348,45	331,04	314,51	0,02	0,00	0,01	0,01	0,01	0,02	0,04	0,10	
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,42	0,32	0,06	0,00	0,00	20,34	20,34	20,34	0,11	0,00	0,00	0,00	0,00	0,05	0,00	0,00	0,03
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	21,26	NA	NA	NO	939,30	375,72	37,57	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	1 B 2 Oil and natural gas	A																	
1 B 2 a	(a)	1 B 2 a Oil	A																	
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NO	NO	IE	IE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NO	NO	4,30	0,33	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NO	NO	1,04	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,41	0,00	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,79	1,79	0,78	0,07	NO	2,92	2,92	2,92	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
2 A	(a)	2 A MINERAL PRODUCTS (b) A																		
2 A 1	(a)	2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 2	(a)	2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 3	(a)	2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 4	(a)	2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
2 A 5	(a)	2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 6	(a)	2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0,02	NE	NE	172,00	43,00	6,88	NE	NE	NE	NE	NE	NE	NE	NE		
2 B	(a)	2 B CHEMICAL INDUSTRY A																		
2 B 1	(a)	2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 2	(a)	2 B 2 Nitric Acid Production	0,40	NE	NE	NE	0,05	310,00	248,00	186,00	NE	NE	NE	NE	NE	NE	NE	NE		
2 B 3	(a)	2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 4	(a)	2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)	0,03	NE	0,03	NE	0,04	19,00	15,00	11,00	NE	NE	NE	NE	NE	NE	NE	NE		
2 C	(a)	2 C METAL PRODUCTION	NA	NE	NE	NA	NA				0,07	0,00	0,00	NE	0,00	0,05	0,00	NE		
2 D	(a)	2 D OTHER PRODUCTION (b) A																		
2 D 1	(a)	2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA		
2 D 2	(a)	2 D 2 Food and Drink	NE	NE	0,53	NE	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA		
2 G	(a)	2 G OTHER (Please specify in a covering note)																		

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HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION		NO	NO	23.22														
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NO	NO	2.14	NO													
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NO	NO	12.64	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B	(a)	4 B MANURE MANAGEMENT (c)	A																	
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE		
4 B 1 a	(a)	4 B 1 a Dairy		NA	NO	NA	NO	16.06	587.41	264.32	58.77	NO	NO	NO	NO	NO	NO	NO		
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NO	NA	NO	7.27	1143.33	514.47	114.38	NO	NO	NO	NO	NO	NO	NO		
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 3	(a)	4 B 3 Sheep		NA	NO	NA	NO	0.10	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 4	(a)	4 B 4 Goats		NA	NO	NA	NO	0.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 6	(a)	4 B 6 Horses		NA	NO	NA	NO	1.02	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 B 8	(a)	4 B 8 Swine		NA	NO	NA	NO	41.07	12380.63	5571.54	1237.55	NO	NO	NO	NO	NO	NO	NO		
4 B 9	(a)	4 B 9 Poultry		NA	NO	NA	NO	4.97	2541.93	1144.22	253.99	NO	NO	NO	NO	NO	NO	NO		
4 B 13	(a)	4 B 13 Other		NA	NO	NA	NO	4.95	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		

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HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

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NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting											Additional reporting						
			Main Pollutants					Particulate matter			Priority metals			Other metals						
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
4 D	(a)	4 D AGRICULTURAL SOILS	A																	
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NO	1,21	NO		22,85	NE	NE	NE	NO	NO	NO	NO	NO	NO		
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NO	NO	NE	NO	NO	NE	NE	NE	NO	NO	NO	NO	NO	NO	NO		
6 B	(a)	6 B WASTE-WATER HANDLING		NO	NO	NE	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		
		National Total		200,33	576,64	123,76	25,28	100,92	33787,73	22111,78	14315,54	5,25	0,66	1,19	0,77	1,64	8,68	13,38	1,88	23,54

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,01	0,64	0,12	0,01	0,00	3,63	3,63	3,63	0,11	0,00	0,00	0,00	0,00	0,12	0,00	0,00	0,07
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7,70	0,96	0,26	0,06	0,00	29,53	29,53	29,53	0,00	0,01	0,00	0,00	0,03	0,99	0,04	0,01	0,58
1 A 3 d i	(a)	International Navigation		81,29	6,91	2,17	39,61		4427,68	4206,30	3995,98	0,14	0,02	0,03	0,24	0,11	0,24	12,91	0,27	0,64
5 E	(a)	5 E Other																		
X		X (11 08 Volcanoes)																		

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SQ.

(b) Including Product handling.

(c) Including NH3 from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 2A: Five-yearly, Minimum reporting of projected national total emissions of main pollutants

Version 2002-1

COUNTRY: DK (as ISO2 code)
 DATE: 14022003 (as DD.MM.YYYY)
 YEAR: 2010-2020 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C

Footnotes or any other information entered into this table will not be taken into account.

Pollutant:	UNIT	Current legislation projections ^{a)}			Current reduction plans		
		2010	2015	2020	2010	2015	2020
Sulphur oxides (SO _x as SO ₂)	Gg	56	50	50			
Nitrogen oxides (NO _x as NO ₂)	Gg	146	130	120			
Non-methane volatile organic compounds (NMVOC)	Gg	83	80	75			
Ammonia (NH ₃)	Gg	83	83	83			

^{a)} Current legislation projections should be based on the activity projections as reported in tables IV 2B, IV 2C, IV 2D, and IV 2E in annex IV.

Note:

For the definition of 'current legislation projections' and 'current reduction plans' please refer to paragraph 24 of the guidelines (chap. V).

TABLE IV 2B: Five-yearly, Minimum reporting of energy consumption data

Version 2002-1

COUNTRY: DK (as ISO2 code)
 DATE: 07.02.2003 (as DD.MM.YYYY)
 YEAR: 2010 (as YYYY, year of Emmissions)

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You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C

Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Hard coal	Brown coal	Other solid fuels	Natural Gas	Derived gases	Heavy fuel oil	Other liquid fuels	Hydrogen	Biomass	Renewable	Crude oil	Nuclear	Hydro
UNIT:		TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A1a	Power Plants	215628,3217	0	36872,95899	110231,2103	0	20589,27594	35744,24419	0	32301,45576	28284,76388		0	114
NFR 1A1b,c	Conversion	0	0	0	44622,1168	0	4801,6593	10711,7567	0	0	0			
NFR 1A2a-f	Industry	11970,99408	0	159	49885,38769	0	18352,99854	21453,60085	0	7040,920767	1498,384352			
NFR 1A4a,bi,ci	Residential/ Commercial	1501	0	1166	48141	0	2318	58426	0	20696	4849			
NFR 1A3aii,b,c,d,ii,ei + +1A4bii,cii,ciii + 1A5b	Transport	0	0	0	0	0	0	189231,5196	0	0	0			
	Non-energy use ^{a)}	0			0	0	9745,0831	880,788	0	0				
	TOTAL	229100,6693	0	38197,95899	252879,483	0	55806,65654	316448,3225	0	60037,99881	34632,27205		0	114
	Refinery input											350110		

^{a)} Should include use of all fuels, including feedstocks for petrochemical industry.

Notes: Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, to these guidelines.

Nuclear, Hydro Primary energy equivalent for non-fossil fuels should be reported according to the total primary energy supply (TPES) convention of converting electricity into primary energy, i.e. electricity generated in nuclear power plants with 33% efficiency, hydro, solar and wind with 100% efficiency and geothermal with 10% efficiency

Energy consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data for this sectoral resolution are not available, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2B: Five-yearly, Minimum reporting of energy consumption data
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 07.02.2003 (as DD.MM.YYYY)
YEAR: 2015 (as YYYY, year of Emmissions)

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Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:	Hard coal	Brown coal	Other solid fuels	Natural Gas	Derived gases	Heavy fuel oil	Other liquid fuels	Hydrogen	Biomass	Renewable	Crude oil	Nuclear	Hydro
UNIT:	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A1a Power Plants	168584,1155	0	34462,74638	157195,1919	0	19022,11743	35847,4827	0	25513,93809	28242,12284		0	104,4
NFR 1A1b,c Conversion	0	0	0	36559,11364	0	4801,6593	10712,73004	0	0	0			
NFR 1A2a-f Industry	13237,99408	0	170	52851,38769	0	20015,99854	23268,60083	0	7427,920767	1603,384352			
NFR 1A4a,bi,ci Residential/Commercial	1584	0	1146	48638	0	2348	56886	0	20852	4865			
NFR 1A3a,ii,b,c,d,ii,ei + 1A4b,ii,c,iii + 1A5b Transport	0	0	0	0	0	0	194605,7393	0	0	0			
Non-energy use ^{a)}	0			0	0	9745,0831	880,788	0	0				
TOTAL	183406,4631	0	35778,74638	295243,4614	0	55932,49803	322201,754	0	53793,48114	34710,63101		0	104,4
Refinery input											350109,9452		

^{a)} Should include use of all fuels, including feedstocks for petrochemical industry.

Notes: Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, to these guidelines.

Nuclear, Hydro Primary energy equivalent for non-fossil fuels should be reported according to the total primary energy supply (TPES) convention of converting electricity into primary energy, i.e. electricity generated in nuclear power plants with 33% efficiency, hydro, solar and wind with 100% efficiency and geothermal with 10% efficiency. Energy consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data for this sectoral resolution are not available, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2B: Five-yearly, Minimum reporting of energy consumption data
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 07.02.2003 (as DD.MM.YYYY)
YEAR: 2020 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:	Hard coal	Brown coal	Other solid fuels	Natural Gas	Derived gases	Heavy fuel oil	Other liquid fuels	Hydrogen	Biomass	Renewable	Crude oil	Nuclear	Hydro
UNIT:	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A1a Power Plants	165742,7122	0	34251,56888	178261,9391	0	16438,10404	23488,8975	0	25786,7141	28140,55388		0	104,4
NFR 1A1b,c Conversion	0	0	0	36166,80244	0	4801,6593	10713,98149	0	0	0			
NFR 1A2a-f Industry	13675,99408	0	174	53822,38769	0	20606,99854	23913,60083	0	7556,920767	1638,384352			
NFR 1A4a,bi,ci Residential/Commercial	1611	0	1137	49109	0	2359	56245	0	20920	4872			
NFR 1A3a,ii,b,c,d,ii,ei + 1A4b,ii,c,iii + 1A5b Transport	0	0	0	0	0	0	196613,1163	0	0	0			
Non-energy use ^{a)}	0			0	0	9745,0831	880,788	0	0				
TOTAL	181030,0598	0	35562,56888	317359,8973	0	53950,48464	311855,7973	0	54263,25715	34651,06205		0	104,4
Refinery input											350109,9452		

^{a)} Should include use of all fuels, including feedstocks for petrochemical industry.

Notes: Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, to these guidelines.

Nuclear, Hydro Primary energy equivalent for non-fossil fuels should be reported according to the total primary energy supply (TPES) convention of converting electricity into primary energy, i.e. electricity generated in nuclear power plants with 33% efficiency, hydro, solar and wind with 100% efficiency and geothermal with 10% efficiency. Energy consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data for this sectoral resolution are not available, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2E: Five-yearly, Minimum reporting of agricultural activity data

Version 2002-1

COUNTRY: (as ISO2 code)
 DATE: (as DD.MM.YYYY)
 YEAR: (as YYYY, year of Emmissions)

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 Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
 Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C
 Footnotes or any other information entered into this table will not be taken into account.

SOURCE/UNIT :		head	N
		1000	Gg
NFR 4B1a	Dairy Cattle; Slurry-based system	753115	
NFR 4B1a	Dairy Cattle; Straw-based system		
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	1485982	
NFR 4B1b	Non-Dairy Cattle; Straw-based system		
NFR 4B3	Sheep	183842,4	
NFR 4B4	Goats	8400	
NFR 4B6	Horses	135000	
NFR 4B7	Mules and Asses	0	
NFR 4B8	Swine; Slurry-based system	18090617	
NFR 4B8	Swine; Straw-based system		
NFR 4B9	Laying Hens	32497636	
NFR 4B9	Broilers		
NFR 4B9	Turkeys		
NFR 4B9	Other Poultry	0	
NFR 4B13	Other Animals	2264230	
NFR 4Di	N-fertilizer use – Urea		
NFR 4Di	N-fertilizer use - other N-fertilizers		
<i>Aggregated categories</i>			
NFR 4B1a	Dairy Cattle	753115	
NFR 4B1b	Non-Dairy Cattle	1485982	
NFR 4B3,4	Sheep and Goats	192242,4	
NFR 4B6,7,13	Horses, Mules and Asses, Other	2399230	
NFR 4B8	Swine	18090617	
NFR 4B9	Poultry	32497636	
NFR 4Di	N-fertilizer use		0

Note:

If possible, both historical (1990, 1995 and 2000) and projection data (2010, 2015 and 2020) should be reported in this format. Whenever disaggregated data are not available, the aggregated format can be used for both historical and projection data. For example, if it is not possible to provide split into slurry and straw systems, report total number of animals only. Similarly for poultry or nitrogen (N) fertilizer use, aggregates should be reported if data on lower resolution could not be found.

TABLE IV 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY: (as ISO2 code)
DATE: (as DD.MM.YYYY)
YEAR: (as YYYY, year of Emmissions)

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Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

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Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Petrol	LPG	Diesel	CNG	Hydrogen	Heavy fuel oil	Kerosene
UNIT:		TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A3bi	Passenger Cars	63794,56	12,34	5801,35				
NFR 1A3bii	Light Duty Vehicles	2854,07		20261,01				
NFR 1A3biii	Heavy Duty Vehicles	48,22		33884,94				
NFR 1A3biv	Mopeds and Motorevcles	618,26						
NFR 1A3c	Railways	0		4010,01				
NFR 1A3cii + 1A4bii,cii + 1A5b	Other Off-road	1773,96		17443,66				1496,78
NFR 1A3aii	Civil Aviation	113,59						2891,15
NFR 1A3dii + 1A4cii	National Shipping	406,48	44,11	13378,50			3845,23	
<i>Aggregated categories</i>								
NFR 1A3bi-iv	Road Transportation	67315,11	12,34	59947,3	0	0		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	1773,96	0	21453,67	0	0		
NFR 1A3aii	Civil Aviation	113,59				0		2891,15
NFR 1A3dii + 1A4cii	National Shipping	406,48	44,11	13378,50		0	3845,23	
TOTAL								

Note:

Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, of the present guidelines.

Data on energy consumption in transport for 1990, 1995 and 2000 (historical years) should be provided on a sectoral resolution as in the table above. If possible, projected energy consumption for years 2010, 2015 and 2020 should also be reported following the same format. However, recognizing the fact that the projections might often be prepared at a higher sectoral resolution, aggregated categories can also be used to report historical data if detailed information cannot be obtained.

LPG - liquefied petroleum gas; CNG - compressed natural gas.

TABLE IV 2B: Five-yearly, Minimum reporting of energy consumption data
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 12.02.2004 (as DD.MM.YYYY)
YEAR: 1990 (as YYYY, year of Emissions)

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Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:	Hard coal	Brown coal	Other solid fuels	Natural Gas	Derived gases	Heavy fuel oil	Other liquid fuels	Hydrogen	Biomass	Renewable	Crude oil	Nuclear	Hydro
UNIT:	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A1a Power Plants	236441,01	IE	15470,8	17575,03	NO	10044,94	2250	NO	8257,1	NE		NO	NE
NFR 1A1b,c Conversion	NO	IE	NO	9132,6		1309,2	13978,1	NO	NO	NE			
NFR 1A2a-f Industry	15042,87	IE	NO	23423,16	NO	21049,93	13086,65	NO	5786	NE			
NFR 1A4a,bi,ci Residential/Commercial	3352,6	IE	914,1	25968,6	NO	4171,18	65265,048	NO	18172,83	NE			
NFR 1A3a,ii,b,c,d,ii,ei + 1A4b,ii,ci,ci,ii + 1A5b Transport	NO	NO	NO	IE		3845,23	164445,06		IE	NE			
Non-energy use ^{a)}	NE			NE	NE	NE	NE	NE	NE				
TOTAL	254836,48	IE	16384,9	76099,39	0	40420,4786	259024,8623	NO	32215,933	NE		NO	NE
Refinery input											308682		

^{a)} Should include use of all fuels, including feedstocks for petrochemical industry.

Notes: Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, to these guidelines.

Nuclear, Hydro Primary energy equivalent for non-fossil fuels should be reported according to the total primary energy supply (TPES) convention of converting electricity into primary energy, i.e. electricity generated in nuclear power plants with 33% efficiency, hydro, solar and wind with 100% efficiency and geothermal with 10% efficiency. Energy consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data for this sectoral resolution are not available, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2E: Five-yearly, Minimum reporting of agricultural activity data

Version 2002-1

COUNTRY: (as ISO2 code)
 DATE: (as DD.MM.YYYY)
 YEAR: (as YYYY, year of Emmissions)

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 Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C
 Footnotes or any other information entered into this table will not be taken into account.

SOURCE/UNIT :		head	N
		1000	Gg
NFR 4B1a	Dairy Cattle; Slurry-based system	702473	
NFR 4B1a	Dairy Cattle; Straw-based system		
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	1387900	
NFR 4B1b	Non-Dairy Cattle; Straw-based system		
NFR 4B3	Sheep	161412	
NFR 4B4	Goats	9200	
NFR 4B6	Horses	285000	
NFR 4B7	Mules and Asses	0	
NFR 4B8	Swine; Slurry-based system	21152744	
NFR 4B8	Swine; Straw-based system		
NFR 4B9	Laying Hens	25707879	
NFR 4B9	Broilers		
NFR 4B9	Turkeys		
NFR 4B9	Other Poultry	0	
NFR 4B13	Other Animals	1849942	
NFR 4Di	N-fertilizer use – Urea		
NFR 4Di	N-fertilizer use - other N-fertilizers		
<i>Aggregated categories</i>			
NFR 4B1a	Dairy Cattle	702473	
NFR 4B1b	Non-Dairy Cattle	1387900	
NFR 4B3,4	Sheep and Goats	170612	
NFR 4B6,7,13	Horses, Mules and Asses, Other	2134942	
NFR 4B8	Swine	21152744	
NFR 4B9	Poultry	25707879	
NFR 4Di	N-fertilizer use		0

Note:

If possible, both historical (1990, 1995 and 2000) and projection data (2010, 2015 and 2020) should be reported in this format. Whenever disaggregated data are not available, the aggregated format can be used for both historical and projection data. For example, if it is not possible to provide split into slurry and straw systems, report total number of animals only. Similarly for poultry or nitrogen (N) fertilizer use, aggregates should be reported if data on lower resolution could not be found.

TABLE IV 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY: (as ISO2 code)
DATE: (as DD.MM.YYYY)
YEAR: (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Petrol	LPG	Diesel	CNG	Hydrogen	Heavy fuel oil	Kerosene
UNIT:		TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A3bi	Passenger Cars	76897,7	12,42	6540,6				
NFR 1A3bii	Light Duty Vehicles	3293,15		21212,45				
NFR 1A3biii	Heavy Duty Vehicles	54,4		36260,22				
NFR 1A3biv	Mopeds and Motorevcles	714,03						
NFR 1A3c	Railways	0		4093,26				
NFR 1A3cii + 1A4bii,cii + 1A5b	Other Off-road	1723,83		18442,56				1646,21
NFR 1A3aii	Civil Aviation	132,42						2619,16
NFR 1A3dii + 1A4cii	National Shipping	699,26	17,99	14363,31			1592,41	
<i>Aggregated categories</i>								
NFR 1A3bi-iv	Road Transportation	80959,28	12,42	64013,27	0	0		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	1723,83	0	22535,82	0	0	0	1646,21
NFR 1A3aii	Civil Aviation	132,42				0		2619,16
NFR 1A3dii + 1A4cii	National Shipping	699,26	17,99	14363,31		0,00	1592,41	
TOTAL								

Note:

Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, of the present guidelines.

Data on energy consumption in transport for 1990, 1995 and 2000 (historical years) should be provided on a sectoral resolution as in the table above. If possible, projected energy consumption for years 2010, 2015 and 2020 should also be reported following the same format. However, recognizing the fact that the projections might often be prepared at a higher sectoral resolution, aggregated categories can also be used to report historical data if detailed information cannot be obtained.

LPG - liquefied petroleum gas; CNG - compressed natural gas.

TABLE IV 2B: Five-yearly, Minimum reporting of energy consumption data
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 12.02.2004 (as DD.MM.YYYY)
YEAR: 1995 (as YYYY, year of Emissions)

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Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:	Hard coal	Brown coal	Other solid fuels	Natural Gas	Derived gases	Heavy fuel oil	Other liquid fuels	Hydrogen	Biomass	Renewable	Crude oil	Nuclear	Hydro
UNIT:	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A1a Power Plants	254813,74	IE	22837,88	45422,79	IE	13341,82	21272,52	NO	11877,9	NE		NO	NE
NFR 1A1b,c Conversion	NO	IE	NO	13013,85	IE	2333,79	20886,19	NO	56,5	NE			
NFR 1A2a-f Industry	16722,82	IE	NO	37169,78	IE	22197,26	13538,0255	NO	7224,4	NE			
NFR 1A4a,bi,ci Residential/Commercial	2362,1	IE	1314,6	40038,8	IE	4252,77	52715,97	NO	19508,37	NE			
NFR 1A3a,ii,b,c,d,ii,ei + 1A4b,ii,ci,iii + 1A5b					IE			NO					
Transport	NO	NO	NO	IE		1592,41	184457,60		IE	NE			
Non-energy use ^{a)}	NE			NE	NO			NE	NE				
TOTAL	273898,66	IE	24152,48	135645,22	IE	43718,0494	292870,3098	NO	38667,165	NE		NO	NE
Refinery input											415310		

^{a)} Should include use of all fuels, including feedstocks for petrochemical industry.

Notes: Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, to these guidelines.

Nuclear, Hydro Primary energy equivalent for non-fossil fuels should be reported according to the total primary energy supply (TPES) convention of converting electricity into primary energy, i.e. electricity generated in nuclear power plants with 33% efficiency, hydro, solar and wind with 100% efficiency and geothermal with 10% efficiency. Energy consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data for this sectoral resolution are not available, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2E: Five-yearly, Minimum reporting of agricultural activity data

Version 2002-1

COUNTRY: (as ISO2 code)
 DATE: (as DD.MM.YYYY)
 YEAR: (as YYYY, year of Emmissions)

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 Footnotes or any other information entered into this table will not be taken into account.

SOURCE/UNIT :		head	N
		1000	Gg
NFR 4B1a	Dairy Cattle; Slurry-based system	635518	
NFR 4B1a	Dairy Cattle; Straw-based system		
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	1232407	
NFR 4B1b	Non-Dairy Cattle; Straw-based system		
NFR 4B3	Sheep	81285,6	
NFR 4B4	Goats	10000	
NFR 4B6	Horses	150000	
NFR 4B7	Mules and Asses	0	
NFR 4B8	Swine; Slurry-based system	11921573	
NFR 4B8	Swine; Straw-based system		
NFR 4B9	Laying Hens	21830273	
NFR 4B9	Broilers		
NFR 4B9	Turkeys		
NFR 4B9	Other Poultry	0	
NFR 4B13	Other Animals	2198898	
NFR 4Di	N-fertilizer use – Urea		
NFR 4Di	N-fertilizer use - other N-fertilizers		
<i>Aggregated categories</i>			
NFR 4B1a	Dairy Cattle	635518	
NFR 4B1b	Non-Dairy Cattle	1232407	
NFR 4B3,4	Sheep and Goats	91285,6	
NFR 4B6,7,13	Horses, Mules and Asses, Other	2348898	
NFR 4B8	Swine	11921573	
NFR 4B9	Poultry	21830273	
NFR 4Di	N-fertilizer use		0

Note:

If possible, both historical (1990, 1995 and 2000) and projection data (2010, 2015 and 2020) should be reported in this format. Whenever disaggregated data are not available, the aggregated format can be used for both historical and projection data. For example, if it is not possible to provide split into slurry and straw systems, report total number of animals only. Similarly for poultry or nitrogen (N) fertilizer use, aggregates should be reported if data on lower resolution could not be found.

TABLE IV 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY: (as ISO2 code)
DATE: (as DD.MM.YYYY)
YEAR: (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Petrol	LPG	Diesel	CNG	Hydrogen	Heavy fuel oil	Kerosene
UNIT:		TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A3bi	Passenger Cars	79324,39	1,05	9270,25				
NFR 1A3bii	Light Duty Vehicles	3439,59		21842,42				
NFR 1A3biii	Heavy Duty Vehicles	43,89		38083,7				
NFR 1A3biv	Mopeds and Motorevcles	879,66						
NFR 1A3c	Railways	0		3078,73				
NFR 1A3cii + 1A4bii,cii + 1A5b	Other Off-road	1672,73		16367,47				1146,45
NFR 1A3aii	Civil Aviation	101,4						2055,37
NFR 1A3dii + 1A4cii	National Shipping	1093,49	12,88	12614,87			1508,81	
<i>Aggregated categories</i>								
NFR 1A3bi-iv	Road Transportation	83687,53	1,05	69196,37	0	0		
NFR 1A3c,cii + 1A4bii,cii + 1A5b	Off-road	1672,73	0	19446,2	0	0		1146,45
NFR 1A3aii	Civil Aviation	101,4				0		2055,37
NFR 1A3dii + 1A4cii	National Shipping	1093,4926	12,88	12614,869		0	1508,81	
TOTAL								

Note:

Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, of the present guidelines.

Data on energy consumption in transport for 1990, 1995 and 2000 (historical years) should be provided on a sectoral resolution as in the table above. If possible, projected energy consumption for years 2010, 2015 and 2020 should also be reported following the same format. However, recognizing the fact that the projections might often be prepared at a higher sectoral resolution, aggregated categories can also be used to report historical data if detailed information cannot be obtained.

LPG - liquefied petroleum gas; CNG - compressed natural gas.

TABLE IV 2B: Five-yearly, Minimum reporting of energy consumption data
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 12.02.2004 (as DD.MM.YYYY)
YEAR: 2000 (as YYYY, year of Emissions)

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Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C
Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:	Hard coal	Brown coal	Other solid fuels	Natural Gas	Derived gases	Heavy fuel oil	Other liquid fuels	Hydrogen	Biomass	Renewable	Crude oil	Nuclear	Hydro
UNIT:	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A1a Power Plants	153175,67	IE	29710,43	76128,41	IE	5484,47	35364,54	NO	14262,66	NE		NO	NE
NFR 1A1b,c Conversion	NO	IE	NO	25204,03	IE	1322,99	15219,73	NO	32,51	NE			
NFR 1A2a-f Industry	11620,78	IE	545,39	39916,91	IE	16648,53	13150,20	NO	5905,51	NE			
NFR 1A4a,bi,ci Residential/Commercial	1124,41	IE	49,385	42507,974	IE	2445,227	39019,00	NO	21823,74	NE			
NFR 1A3a,ii,b,c,d,ii,ei + 1A4b,ii,ci,iii + 1A5b Transport	NO	NO	NO	IE	IE	1508,81	187826,52	IE	NE	NE			
Non-energy use ^{a)}	NE			NE	IE	NE	NE	NE	NE				
TOTAL	165920,86	IE	30305,205	183757,324	IE	27410,02305	290579,9957	NO	42024,42	NE		NO	NE
Refinery input											346270		

^{a)} Should include use of all fuels, including feedstocks for petrochemical industry.

Notes: Fuels used in this table are defined in terms of relation to the IPCC/IEA and CORINAIR NAPFUE categories in annex III, table IIIC, to these guidelines.

Nuclear, Hydro Primary energy equivalent for non-fossil fuels should be reported according to the total primary energy supply (TPES) convention of converting electricity into primary energy, i.e. electricity generated in nuclear power plants with 33% efficiency, hydro, solar and wind with 100% efficiency and geothermal with 10% efficiency. Energy consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data for this sectoral resolution are not available, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

6 B	6 B WASTEWATER HANDLING																			
6 C	6 C WASTE INCINERATION (d)																			
6 D	6 D OTHER WASTE (e)																			
	7 OTHER																			
	National Total																			

<i>Memo Items</i>																				
1 a 3 a i (i)	International Aviation (LTO)																			
1 a 3 a i (ii)	International Aviation (Cruise)																			
1 a 3 d i	International Marine (b)																			
5 E	5 E Other																			
X	X (11 08 Volcanoes)																			

- (a) Including Handling;
- (b) Including NH3 from Enteric Fermentation;
- (c) Including PM sources;
- (d) Excludes waste incineration for energy (this is included in 1 A 1);
- (e) Includes accidental fires.

Notes 1: POPs should cover the timespan from 1990 to the latest year.

(1): The POPs listed in annex I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in annex I;

(2): The POPs listed in annex II to the Protocol on POPs are substances scheduled for restrictions on use;

(3): The POPs listed in annex III to the Protocol on POPs are substances referred to in article 3, para. 5 (a), of the Protocol. Polycyclic aromatic hydrocarbons (PAHs): For the purpose of the emission inventories, the following four indicator compounds should be used: benzo(b)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene. HCB is also included in annex I;

(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

TABLE IV 1A: National sector emissions: Main pollutants, particulate matter and heavy metals
Version 2002-1

COUNTRY: (as ISO2 code)
DATE: (as DD.MM.YYYY)
YEAR: (as YYYY, year of Emissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.

Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.

Please fill out the blue marked fields. You may use the aggregation levels instead of the gray marked fields in aggregation.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO, NA, NE, IE, C

Footnotes or any other information entered into this table will not be taken into account.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting					
				Main Pollutants					Particulate matter			Priority metals		Other metals					
		NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
		Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production	43,27	10,37	3,91	12,1	999,04			3,02	0,19	0,57	0,54	0,44	0,58	2,08	0,89	12,26	
1 A 1 b	(a)	1 A 1 b Petroleum refining	1,39	0,25	0	0,61	142,25			0,03	0,02	0,01	0,02	0,04	0,02	0,85	0,02	0	
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries	6,24	0,71	0,05	0,01	2,61												
1 A 2	(a)	1 A 2 Manufacturing Industries and Construction	26,89	17,83	3,88	7,9	0,23	1944,85		0,63	0,21	0,26	0,22	0,71	0,64	6,18	0,49	1,3	
1 A 2 a	(a)	1 A 2 a Iron and Steel					192,8			0,69	0,01		0,03	0,11		0,13	0,48	0,48	
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals					34,28			0,01	0				0			0	
1 A 2 c	(a)	1 A 2 c Chemicals																	
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print																	
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco																	
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)																	
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)	0,27	0,78	0,14	0	0	1,69		1,37	0			0	0,03	0	0	0,02	
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)	0,46	0,11	0,01	0	0	1,71		0	0	0	0	0	0,06	0	0	0,03	
1 A 3 b	(a)	1 A 3 b Road Transportation																	

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting							
				Main Pollutants					Particulate matter			Priority metals		Other metals							
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
I A 3 b i		I A 3 b i R.T., Passenger cars		37,33	274,09	23,78	0,2	2,16	733,34				0,05	0,02			0,1	3,45	0,14	0,02	2,03
I A 3 b ii		I A 3 b ii R.T., Light duty vehicles		10,06	17,67	2	0,06	0,05	1765,52				0	0,01			0,03	1	0,04	0,01	0,59
I A 3 b iii		I A 3 b iii R.T., Heavy duty vehicles		27,02	6,95	3,11	0,09	0,01	1416,32				0	0,01			0,04	1,52	0,06	0,01	0,89
I A 3 b iv		I A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,27	3,2	0	0	54,09				0	0			0	0,03	0	0	0,02
I A 3 b v		I A 3 b v R.T., Gasoline evaporation				9,53															
I A 3 b vi		I A 3 b vi R.T., Automobile tyre and brake wear																			
I A 3 b vii		I A 3 b vii R.T., Automobile road abrasion																			
I A 3 c	(a)	I A 3 c Railways		3,73	0,69	0,25	0,01	0	140,57				0	0			0	0,12	0,01	0	0,07
I A 3 d ii		I A 3 d ii National Navigation		7,79	19,91	11,34	1,65	0	524,35				0,02	0	0	0,02	0,01	0,1	1,12	0,03	0,12
I A 3 e	(a)	I A 3 e Other (Please specify in a covering note)	A																		
I A 3 e i		I A 3 e i Pipeline compressors																			
I A 3 e ii		I A 3 e ii Other mobile sources and machinery																			
I A 4 a	(a)	I A 4 a Commercial / Institutional		1,04	0,81	0,5	0,33		137,65				0,18	0,02	0,04	0,02	0,02	0,03	0,23	0,03	0,16
I A 4 b	(a)	I A 4 b Residential	A																		
I A 4 b i		I A 4 b i Residential plants		4,94	141,48	10,85	1,75		3105,69				0,13	0,1	0,15	0,04	0,03	0,13	0,05	0,14	2,27
I A 4 b ii		I A 4 b ii Household and gardening (mobile)		0,24	47,6	4,16	0	0	25,97				0	0			0	0,04	0	0	0,03

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting											Additional reporting					
				Main Pollutants					Particulate matter			Priority metals			Other metals					
				NOx	CO	NMVOC	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
1 A 4 c	(a)	1 A 4 c Agriculture / Forestry / Fishing	A																	
1 A 4 c i		1 A 4 c i Stationary		1,54	1,63	1,98	1,61		141,66			0,06	0,03	0,03	0,03	0,07	0,03	1,15	0,03	0,09
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		20,33	20,79	4,56	0,38	0	2056,17			0	0			0,02	0,66	0,03	0	0,39
1 A 4 c iii		1 A 4 c iii National Fishing		11,16	2,68	1,18	0,78	0	355,87			0,02	0	0,01	0,01	0,01	0,01	0,01	0,04	0,1
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)																		
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,51	0,4	0,06	0,01	0	18,58			0,11	0	0	0	0	0,06	0	0	0,04
1 B 1	(a)	1 B 1 Fugitive Emissions from Solid Fuels	A																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling				21,78			962,25											
1 B 1 b	(a)	1 B 1 b Solid fuel transformation																		
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)																		
1 B 2	(a)	1 B 2 Oil and natural gas	A																	
1 B 2 a	(a)	1 B 2 a Oil	A																	
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport																		
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage				4,98	0,98													
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products				1,05														
1 B 2 a vi	(a)	1 B 2 a vi Other																		
1 B 2 b	(a)	1 B 2 b Natural gas		0		0,42	0													
1 B 2 c	(a)	1 B 2 c Venting and flaring		3,12	2,02	0,88	0,05		2,69											

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting									Additional reporting								
				Main Pollutants					Particulate matter				Priority metals			Other metals					
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn	
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	
2 A	(a)	2 A MINERAL PRODUCTS (b) A																			
2 A 1	(a)	2 A 1 Cement Production																			
2 A 2	(a)	2 A 2 Lime Production																			
2 A 3	(a)	2 A 3 Limestone and Dolomite Use																			
2 A 4	(a)	2 A 4 Soda Ash Production and use																			
2 A 5	(a)	2 A 5 Asphalt Roofing																			
2 A 6	(a)	2 A 6 Road Paving with Asphalt																			
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)			0.04			191													
2 B	(a)	2 B CHEMICAL INDUSTRY A																			
2 B 1	(a)	2 B 1 Ammonia Production																			
2 B 2	(a)	2 B 2 Nitric Acid Production		0.41			0.01	362													
2 B 3	(a)	2 B 3 Adipic Acid Production																			
2 B 4	(a)	2 B 4 Carbide Production																			
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)																			
2 C	(a)	2 C METAL PRODUCTION								0.07	0				0.05			0.63			
2 D	(a)	2 D OTHER PRODUCTION (b) A																			
2 D 1	(a)	2 D 1 Pulp and Paper																			
2 D 2	(a)	2 D 2 Food and Drink																			
2 G	(a)	2 G OTHER (Please specify in a covering note)			0.47																

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	Yearly minimum reporting										Additional reporting						
				Main Pollutants					Particulate matter			Priority metals		Other metals						
				NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn
				Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg
3 A	(a)	3 A PAINT APPLICATION			23,22															
3 B	(a)	3 B DEGREASING AND DRY CLEANING																		
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING			2,14															
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)			12,64															
4 B	(a)	4 B MANURE MANAGEMENT (e)	A																	
4 B 1	(a)	4 B 1 Cattle																		
4 B 1 a	(a)	4 B 1 a Dairy					17,2	612,39												
4 B 1 b	(a)	4 B 1 b Non-Dairy					7,9	1187,55												
4 B 2	(a)	4 B 2 Buffalo																		
4 B 3	(a)	4 B 3 Sheep					0,12													
4 B 4	(a)	4 B 4 Goats					0,01													
4 B 5	(a)	4 B 5 Camels and Llamas																		
4 B 6	(a)	4 B 6 Horses					1,03													
4 B 7	(a)	4 B 7 Mules and Asses																		
4 B 8	(a)	4 B 8 Swine					40,59	11592,54												
4 B 9	(a)	4 B 9 Poultry					5,01	2674,54												
4 B 13	(a)	4 B 13 Other					4,68													
4 C	(a)	4 C RICE CULTIVATION																		

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	Yearly minimum reporting										Additional reporting								
			Main Pollutants					Particulate matter			Priority metals		Other metals								
			NOx	CO	NMVOG	SOx	NH3	TSP	PM10	PM2.5	Pb	Cd	Hg	As	Cr	Cu	Ni	Se	Zn		
			Gg NO ₂	Gg	Gg	Gg SO ₂	Gg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg	Mg		
4 D	(a)	4 D AGRICULTURAL SOILS	A																		
4 D 1	(a)	4 D 1 Direct Soil Emission				1,19		25,7													
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES																			
4 G	(a)	4 G OTHER (d)																			
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION																			
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND																			
6 B	(a)	6 B WASTE-WATER HANDLING																			
6 C	(a)	6 C WASTE INCINERATION (e)																			
6 D	(a)	6 D OTHER WASTE (f)																			
7	(a)	7 OTHER																			
		National Total		326,11	612,4	134,8	93,72	104,73	39057,62				7,18	0,68	1,2	1,35	1,83	9,13	36,5	2,62	23,98

Memo Items																				
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,08	0,64	0,12	0,01	0	3,95			0,12	0	0	0	0	0,13	0,01	0	0,08
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		8,39	1,11	0,25	0,07	0	33,96			0	0,01	0	0	0,03	1,14	0,05	0,01	0,67
1 A 3 d i	(a)	International Navigation		117,15	9,96	3,13	65,17		7613,72			0,22	0,03	0,04	0,43	0,18	0,43	24,36	0,43	1
5 E	(a)	5 E Other																		
X		X (11 08 Volcanoes)																		

(a) Sectors already reported to UNFCCC for NOx, CO, NMVOC, SO₂.

(b) Including Product handling.

(c) Including NH₃ from Enteric Fermentation.

(d) Including PM sources.

(e) Excludes waste incineration for energy (this is included in 1 A 1).

(f) Includes accidental fires.

Note 1: Main Pollutants should cover the timespan from 1980 to latest year.

HM should cover the timespan from 1990 to latest year.

PM should cover the timespan from 2000 to latest year.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is not available. Grey cells show which sectors can be aggregated into the sector marked A. Black cells occur when two possible levels of aggregation are possible

TABLE IV 2C: Five-yearly, Minimum reporting of electricity and heat production and consumption

Version 2002-1

COUNTRY: DK (as ISO2 code)
 DATE: 07.02.2003 (as DD.MM.YYYY)
 YEAR: 2010 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
 Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
 Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C
 Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Electricity	Heat
UNIT:		TJ	TJ
Gross production		189763,442	143288,149
Own use and losses ^{a)}		10960,4073	31040,1489
Import – Export ^{b)}		-48975,1151	
<i>Final consumption</i>			
NFR 1A2a-f	Industry	41327	7660
NFR 1A4a,bi,ci	Commercial	87632	104588
NFR 1A3ai,b,c,dii,eii + 1A4bii,cii,ciii + 1A5b	Transport	868,91971	0
	TOTAL	129827,92	112248

^{a)} Includes own use in power plants and conversion sector (NFR 1A1a,b,c) and transmission and distribution losses.

^{b)} Please indicate the sign, i.e. if Exports are larger than Imports the number given should be negative.

Notes:

¹⁾ If data in the statistics are reported in GWh they can be converted to TJ, i.e. 1 GWh = 3.6 TJ.

²⁾ Electricity and heat production and consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data on final consumption are not available for this sectoral resolution, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2C: Five-yearly, Minimum reporting of electricity and heat production and consumption

Version 2002-1

COUNTRY: DK (as ISO2 code)
 DATE: 07.02.2003 (as DD.MM.YYYY)
 YEAR: 2015 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
 Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
 Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C
 Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Electricity	Heat
UNIT:		TJ	TJ
Gross production		200824,213	145914,533
Own use and losses ^{a)}		11666,6481	31542,533
Import – Export ^{b)}		-49961,645	
<i>Final consumption</i>			
NFR 1A2a-f	Industry	45233	8072
NFR 1A4a,bi,ci	Commercial	93094	106300
NFR 1A3ai,b,c,dii,eii + 1A4bii,cii,ciii + 1A5b	Transport	868,91971	0
	TOTAL	139195,92	114372

^{a)} Includes own use in power plants and conversion sector (NFR 1A1a,b,c) and transmission and distribution losses.

^{b)} Please indicate the sign, i.e. if Exports are larger than Imports the number given should be negative.

Notes:

¹⁾ If data in the statistics are reported in GWh they can be converted to TJ, i.e. 1 GWh = 3.6 TJ.

²⁾ Electricity and heat production and consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data on final consumption are not available for this sectoral resolution, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

TABLE IV 2C: Five-yearly, Minimum reporting of electricity and heat production and consumption

Version 2002-1

COUNTRY: DK (as ISO2 code)
 DATE: 07.02.2003 (as DD.MM.YYYY)
 YEAR: 2020 (as YYYY, year of Emmissions)

These five yellow lines will not be read by UNECE! These lines can be modified freely for your own reference purposes.
 Footnotes to the emission figures reported should be submitted together with the emission data, but in a separate document.
 Please fill out the blue marked fields.

You must use for each field either a number or one of the following codes (capitals, no dots in between, see EB.AIR/GE.1/2002/2): NO , NA , NE , IE , C
 Footnotes or any other information entered into this table will not be taken into account.

SOURCE/FUEL:		Electricity	Heat
UNIT:		TJ	TJ
Gross production		209249,435	146640,164
Own use and losses ^{a)}		11951,1237	31533,1638
Import – Export ^{b)}		-54342,3918	
<i>Final consumption</i>			
NFR 1A2a-f	Industry	46747	8203
NFR 1A4a,bi,ci	Commercial	95340	106904
NFR 1A3ai,b,c,dii,eii + 1A4bii,cii,ciii + 1A5b	Transport	868,91971	0
	TOTAL	142955,92	115107

^{a)} Includes own use in power plants and conversion sector (NFR 1A1a,b,c) and transmission and distribution losses.

^{b)} Please indicate the sign, i.e. if Exports are larger than Imports the number given should be negative.

Notes:

¹⁾ If data in the statistics are reported in GWh they can be converted to TJ, i.e. 1 GWh = 3.6 TJ.

²⁾ Electricity and heat production and consumption should be reported both for historical (1990, 1995 and 2000) and projection years (2010, 2015 and 2020) as in the table above. If data on final consumption are not available for this sectoral resolution, they may be submitted in a different aggregation (consistent with NFR) with documentation on the aggregation used.

Annex 2A

Stationary Combustion Plants

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1 Methodology and references

The Danish emission inventory is based on the CORINAIR (CORe INventory on AIR emissions) system, which is a European program for air emission inventories. CORINAIR includes methodology structure and software for inventories. The methodology is described in the EMEP/Corinair Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP Task Force on Emissions Inventories and Projections (EMEP/Corinair 2003). Emission data are stored in an Access database, from which data are transferred to the reporting format.

The emission inventory for stationary combustion is based on activity rates from the Danish energy statistics. General emission factors for different fuels, plants and sectors have been determined. Some large plants like e.g. power plants are registered individually as large point sources and plant specific emission data are used.

The emission inventory for dioxin is reported by the Danish Environmental Protection Agency. The dioxin emission data are shown but not further discussed in this report.

1.1 Emission source categories

In the Danish emission database all activity rates and emissions are defined in SNAP sector categories (Selected Nomenclature for Air Pollution). The emission inventories are prepared from a complete emission database based on the SNAP sectors. Aggregation the sector codes used for the LRTAP Convention is based on a correspondence list between SNAP and NFR sectors enclosed in Appendix 2A-2.

The sector codes applied in the reportings will be referred to as the NFR sectors. The NFR sectors define 6 main source categories, shown in Table 2A-1, and a number of subcategories. Stationary combustion is part of the NFR sector 1 Energy. Table 2A-2 shows subsectors to the NFR energy sector. The table also shows in which sector the NERI documentation is included. Stationary combustion is defined as combustion activities in the SNAP sectors 01-03.

Table 2A-1 NFR main sectors

1. Energy
2. Industrial Processes
3. Solvent and Other Product Use
4. Agriculture
5. Land-Use Change and Forestry
6. Waste

Table 2A-2 NFR source categories for the energy sector

NFR id	NFR sector name	NERI reporting
1	Energy	Stationary combustion, Transport, Fugitive.
1A	Fuel Combustion Activities	Stationary combustion, Transport, Industry
1A1	Energy Industries	Stationary combustion
1A1a	Electricity and Heat Production	Stationary combustion
1A1b	Petroleum Refining	Stationary combustion
1A1c	Solid Fuel Transf./Other Energy Industries	Stationary combustion
1A2	Fuel Combustion Activities/Industry (ISIC)	Stationary combustion, Transport, Industry
1A2a	Iron and Steel	Stationary combustion, Industry
1A2b	Non-Ferrous Metals	Stationary combustion, Industry
1A2c	Chemicals	Stationary combustion
1A2d	Pulp, Paper and Print	Stationary combustion
1A2e	Food Processing, Beverages and Tobacco	Stationary combustion
1A2f	Other (please specify)	Stationary combustion, Transport, Industry
1A3	Transport	Transport
1A3a	Civil Aviation	Transport
1A3b	Road Transportation	Transport
1A3c	Railways	Transport
1A3d	Navigation	Transport
1A3e	Other (please specify)	Transport
1A4	Other Sectors	Stationary combustion, Transport
1A4a	Commercial/Institutional	Stationary combustion
1A4b	Residential	Stationary combustion, Transport
1A4c	Agriculture/Forestry/Fishing	Stationary combustion, Transport
1A5	Other (please specify)	Stationary combustion, Transport
1A5a	Stationary	Stationary combustion
1A5b	Mobile	Transport
1B	Fugitive Emissions from Fuels	Fugitive
1B1	Solid Fuels	Fugitive
1B1a	Coal Mining	Fugitive
1B1a1	Underground Mines	Fugitive
1B1a2	Surface Mines	Fugitive
1B1b	Solid Fuel Transformation	Fugitive
1B1c	Other (please specify)	Fugitive
1B2	Oil and Natural Gas	Fugitive
1B2a	Oil	Fugitive
1B2a2	Production	Fugitive
1B2a3	Transport	Fugitive
1B2a4	Refining/Storage	Fugitive
1B2a5	Distribution of oil products	Fugitive
1B2a6	Other	Fugitive
1B2b	Natural Gas	Fugitive
1B2b1	Production/processing	Fugitive
1B2b2	Transmission/distribution	Fugitive
1B2c	Venting and Flaring	Fugitive
1B2c1	Venting and Flaring Oil	Fugitive
1B2c2	Venting and Flaring Gas	Fugitive
1B2d	Other	Fugitive

Stationary combustion plants are included in the emission source subcategories:

- 1A1 Energy, Fuel consumption, Energy Industries
- 1A2 Energy, Fuel consumption, Manufacturing Industries and Construction
- 1A4 Energy, Fuel consumption, Other Sectors

The emission sources 1A2 and 1A4 however also include emission from transport subsectors. The emission source 1A2 includes emission from some off road machinery in the industry. The emission source 1A4 includes off road machinery in agriculture, forestry and household/gardening. Further emissions from national fishing are included in subsector 1A4.

The emission and fuel consumption data shown in tables and figures in this report only includes emissions originating from stationary combustion plants of a given NFR sector. The NFR sector codes have been applied unchanged, but some sector names have been changed to reflect the stationary combustion part of the source.

1.2 Large point sources

Large emission sources like power plants, industrial plants and refineries are included as large point sources in the Danish emission database. Each point source might consist of more than one part e.g. a power plant with several units. By registering the plants as point sources in the database it is possible to use plant specific emission factors.

In the inventory for the year 2002 63 stationary combustion plants are specified as large point sources in the Danish emission database. These point sources include:

- Power plants and decentralised CHP plants (combined heat and power plants)
- Municipal waste incineration plants
- A few large industrial combustion plants
- Petroleum refining plants

The fuel consumption of stationary combustion plants registered as large point sources is 326 PJ (2002). This corresponds to 57% of the overall fuel consumption of stationary combustion.

A list of large point sources for 2002 and the fuel consumption rates is shown in Appendix 2A-5 that also shows which of the large point source emissions are based on plant specific emission data. The number of large point sources registered in the databases increased from 1990 to 2002. In the emission databases for the years before 1990 no large point sources have been registered.

SO₂ and NO_x emissions from large point sources are often plant specific based on emission measurements. Emissions of CO, NMVOC, PM and metals are also plant specific for some plants. Plant specific emission data are obtained from:

- Annual environmental reports
- Annual plant specific reporting of SO₂ and NO_x from power plants >25MW_e prepared for the Danish Energy Authority due to Danish legislation
- Emission data reported by Elsam and E2, the two major electricity suppliers
- Emission data reported from industrial plants

Annual environmental reports from the plants include a considerable number of emission data sets. Emission data from annual environmental reports are in general based on emission measurements, but some emissions might have been calculated from general emission factors.

If plant specific emission factors are not available the general area source emission factors are used.

1.3 Area sources

Fuels not combusted in large point sources are included as sector specific area sources in the emission database. Plants like residential boilers, small district heating plants, small CHP plants and some industrial boilers are defined as area sources. Emissions from area sources are based on fuel consumption data

and emission factors. Further information about emission factors is given below.

1.4 Activity rates, fuel consumption

The fuel consumption rates are based on the official Danish energy statistics prepared by the Danish Energy Authority. The Danish Energy Authority aggregates fuel consumption rates to SNAP sector categories (DEA 2003a). Some fuel types in the official Danish energy statistics are added to obtain a less detailed fuel aggregation level, see Appendix 2A-7. The calorific values on which the energy statistics are based are also enclosed in Appendix 2A-7.

The fuel consumption of the NFR sector *1A2 Manufacturing industries and construction* (corresponding to SNAP sector *03 Combustion in manufacturing industries*) have not yet been disaggregated to specific industries. In the Climate Convention reporting the emissions are included in sector *1A2f Industry, Other* because technically it is not possible to report the emission in the aggregated source category *1A2 Manufacturing industries and construction*. However NERI and the Danish Energy Authority have initiated the work that should ensure that fuel consumption rates of each industrial subsector will be reported next year.

Both traded and not traded fuels are included in the Danish energy statistics. Thus e.g. an estimation of the annual consumption of non-traded wood is included.

Petroleum coke bought abroad and combusted in Danish residential plants (border trade of 251 TJ) are added to the apparent consumption of petroleum coke and the emissions are included in the inventory.

The Danish Energy Authority compile a database for the fuel consumption of each district heating and power producing plant based on data reported by the plant owners. The fuel consumption of large point sources specified in the Danish emission databases refers to this database (DEA 2003c).

The fuel consumption of area sources is calculated as total fuel consumption minus fuel consumption of large point sources.

Emissions from non-energy use of fuels is not been included in the Danish inventory. The Danish energy statistics include three fuels used for non-energy purposes: Bitumen, white spirit and lube oil.

In Denmark all municipal waste incineration is utilised for heat and power production. Thus incineration of waste is included as stationary combustion in the NFR Energy sector (source categories *1A1, 1A2* and *1A4*).

Fuel consumption data are presented in chapter 4.

1.5 Emission factors

For each fuel and SNAP (sector and e.g. type of plant) a set of general area source emission factors has been determined. The emission factors are either national referenced or based on the international guidebooks: EMEP/Corinair Guidebook (EMEP/Corinair 2003) and IPCC Reference Manual (IPCC 1996).

A complete list of emission factors including time series and references is shown in Appendix 2A-4.

Some of the area source emission factors for power plants and municipal waste CHP plants take into account, that the large plants are included in the inventory as large point sources with plant specific emission data. Thus some area source emission factors are default values assuming that the remaining fuel consumption is combusted in smaller units with less effective flue gas cleaning. The area source emission factors are therefore not necessarily average values for these plant categories.

1.5.1 SO₂, NO_x, NMVOC and CO

Emission factors for SO₂, NO_x, NMVOC and CO are shown in Appendix 2A-4. The appendix includes references and time series.

The emission factors refer to:

- The EMEP/Corinair Guidebook (EMEP/CorinAir 2003)
- The IPCC Guidelines, Reference Manual (IPCC 1996)
- Danish legislation:
 - Miljøstyrelsen 2001
 - Miljøstyrelsen 1990
 - Miljøstyrelsen 1998
- Danish research reports including:
 - An emission measurement program for decentralised CHP plants (Nielsen & Illerup 2003)
 - Research and emission measurements programs for biomass fuels:
 - Nikolaisen et al, 1998
 - Jensen & Nielsen, 1990
 - Dyrnum et al, 1990
 - Hansen et al, 1994
 - Serup et al, 1999
 - Research and environmental data from the gas sector:
 - Gruijthuijsen & Jensen 2000
 - Danish Gas Technology Centre 2001
- Calculations based on plant specific emission data from a considerable number of power plants (Nielsen 2003)
- Calculations based on plant specific emission data from a considerable number of municipal waste incineration plants. These data refer to annual environmental reports published by the plant owners.
- Sulphur content data from oil companies and the Danish gas transmission company
- Additional personal communication

Emission factor time series have been estimated for a considerable part of the emission factors. These are shown in Appendix 2A-4.

1.5.2 Particulate matter

Emission factors for PM are shown in Appendix 2A-4. The appendix includes references. The emission factors are based on:

- The TNO/CEPMEIP emission factor database (TNO CEPMEIP 2001)

and a considerable number of country specific factors (Nielsen et al 2003) referring to:

- Danish legislation:
 - Miljøstyrelsen 2001
 - Miljøstyrelsen 1990
- Calculations based on plant specific emission data from a considerable number of municipal waste incineration plants
- Danish research reports including:
 - An emission measurement program for decentralised CHP plants (Nielsen & Illerup 2003)
 - An emission measurement program for large power plants (Livbjerg et al 2001)
- Additional personal communication concerning wood and straw combustion in residential plants

The same emission factors are applied for 2000-2002.

1.5.3 Heavy metals

Emission factors 2002 for heavy metals (HM) are shown in Appendix 2A-4. The appendix includes references and time series. The emission factors refer to:

- Research concerning heavy metal emission factors representative for Denmark (Illerup et al 1999)
- Emission measurement program carried out on Danish decentralised CHP plants (Nielsen & Illerup 2003)

Time series have been estimated for municipal waste incineration. For all other sources the same emission factors have been applied for 1990-2002.

1.5.4 PAH

Emission factors 2002 for PAHs are shown in Appendix 2A-4. The appendix includes references. The PAH emission factors refer to:

- Research carried out by TNO (Berdowski et al 1995)
- Research carried out by Statistics Norway (Finstad et al 2001)
- An emission measurement program performed at biomass fuelled plants. The project was carried out for the Danish Environmental Protection Agency (Jensen & Nielsen 1996)
- An emission measurement program carried out on Danish decentralised CHP plants (Nielsen & Illerup 2003)

- Additional information from the gas sector and the electricity production sector (Sander 2002 and Jensen 2001).

The same emission factors are applied for all years. In general the emission factors for PAH are uncertain.

2 Fuel consumption data

In 2002 the total fuel consumption for stationary combustion plants was 568 PJ of which 490 PJ was fossil fuels. The fuel consumption rates are shown in Appendix 2A-3.

Fuel consumption of the stationary combustion subsectors is shown in Figure 2A-1 and Figure 2A-2. The main part – 59% - of the fuels is combusted in the sector *Electricity and heat production*. Other sectors with high fuel consumption are *Residential* and *Industry*.

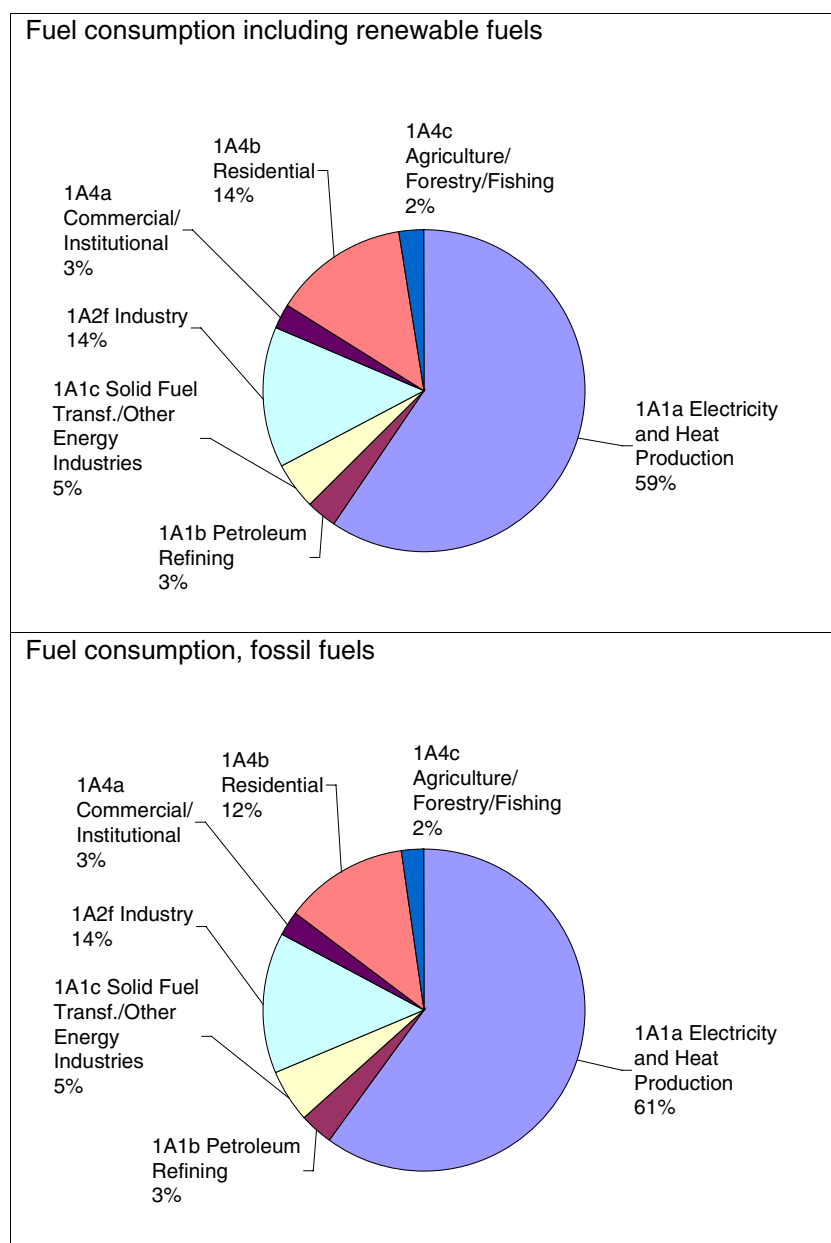


Figure 2A-1 Fuel consumption rate of stationary combustion, 2002 (based on DEA 2003a)

Coal and natural gas are the most utilised fuels for stationary combustion plants. Coal is mainly used in power plants and natural gas is used in power

plants and decentralised CHP plants as well as in industry, district heating and households.

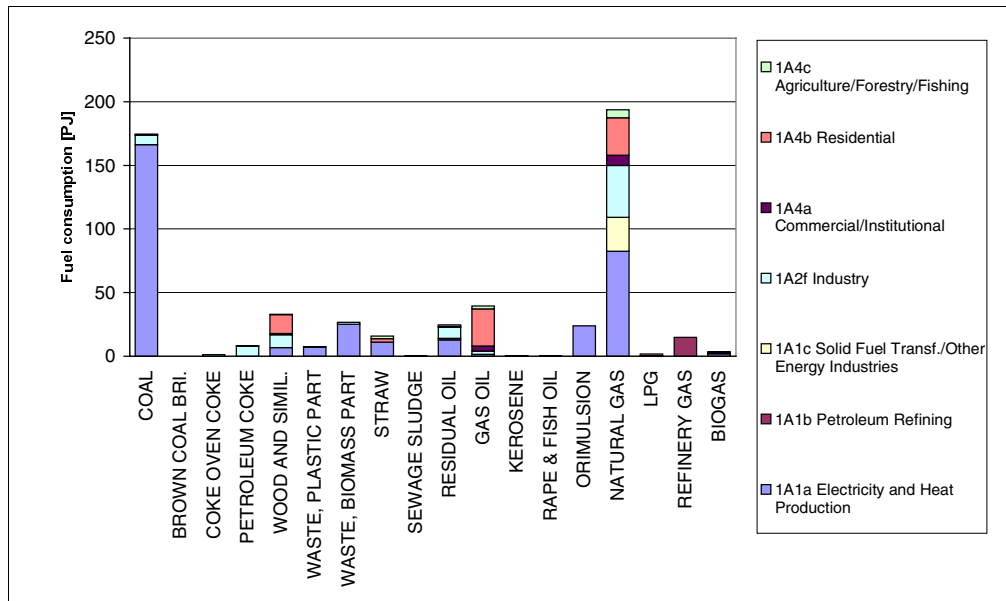


Figure 2A-2 Fuel consumption of stationary combustion plants 2002 (based on DEA 2003a)

Fuel consumption time series for stationary combustion plants are shown in Figure 2A-3. The total fuel consumption has increased by 14% from 1990 to 2002, while the fossil fuel consumption has only increased by 8%. The consumption of natural gas and renewable fuels has increased since 1990 whereas coal consumption has decreased.

The fuel consumption rate fluctuates considerably mainly due to electricity import/export but also due to outdoor temperature variations.

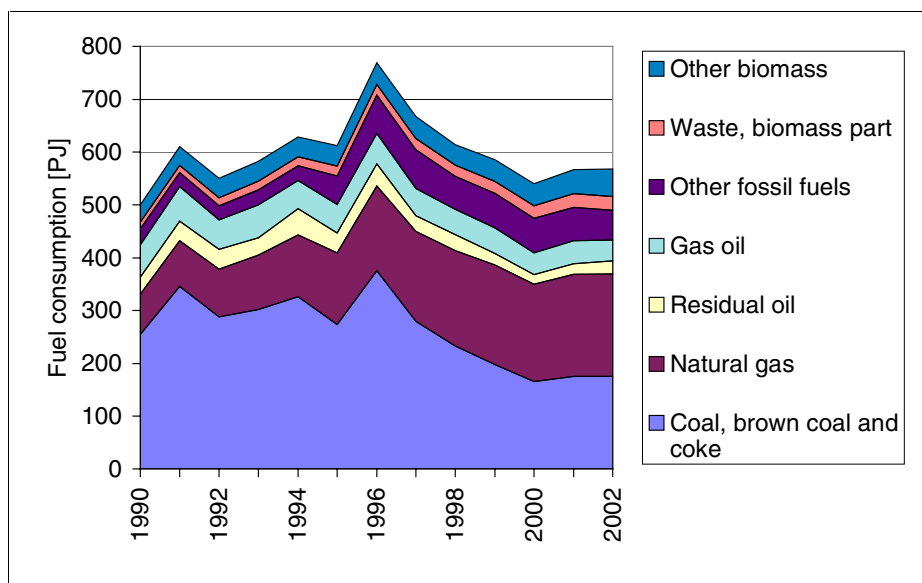


Figure 2A-3 Fuel consumption time series, stationary combustion (based on DEA 2003a)

The fluctuations in the time series for fuel consumption are a result mainly of electricity import/export but also of outdoor temperature variations between years. This also leads to fluctuations of the emission levels. The fluctuations of electricity trade, fuel consumption and NO_x emission are shown and compared in Figure 2A-4. In 1990 the Danish electricity import was large causing relatively low fuel consumption, whereas the fuel consumption was high in 1996 due to a large electricity export. In 2002 the net electricity export was 7453 TJ.

To be able to follow the national energy consumption and for statistical and reporting purposes the Danish Energy Authority produces a correction of the actual fuel consumption without random variations in electricity imports/exports and in ambient temperature. This fuel consumption trend is also shown in Figure 2A-4. The corrections are included here to explain the fluctuations in the emission time series.

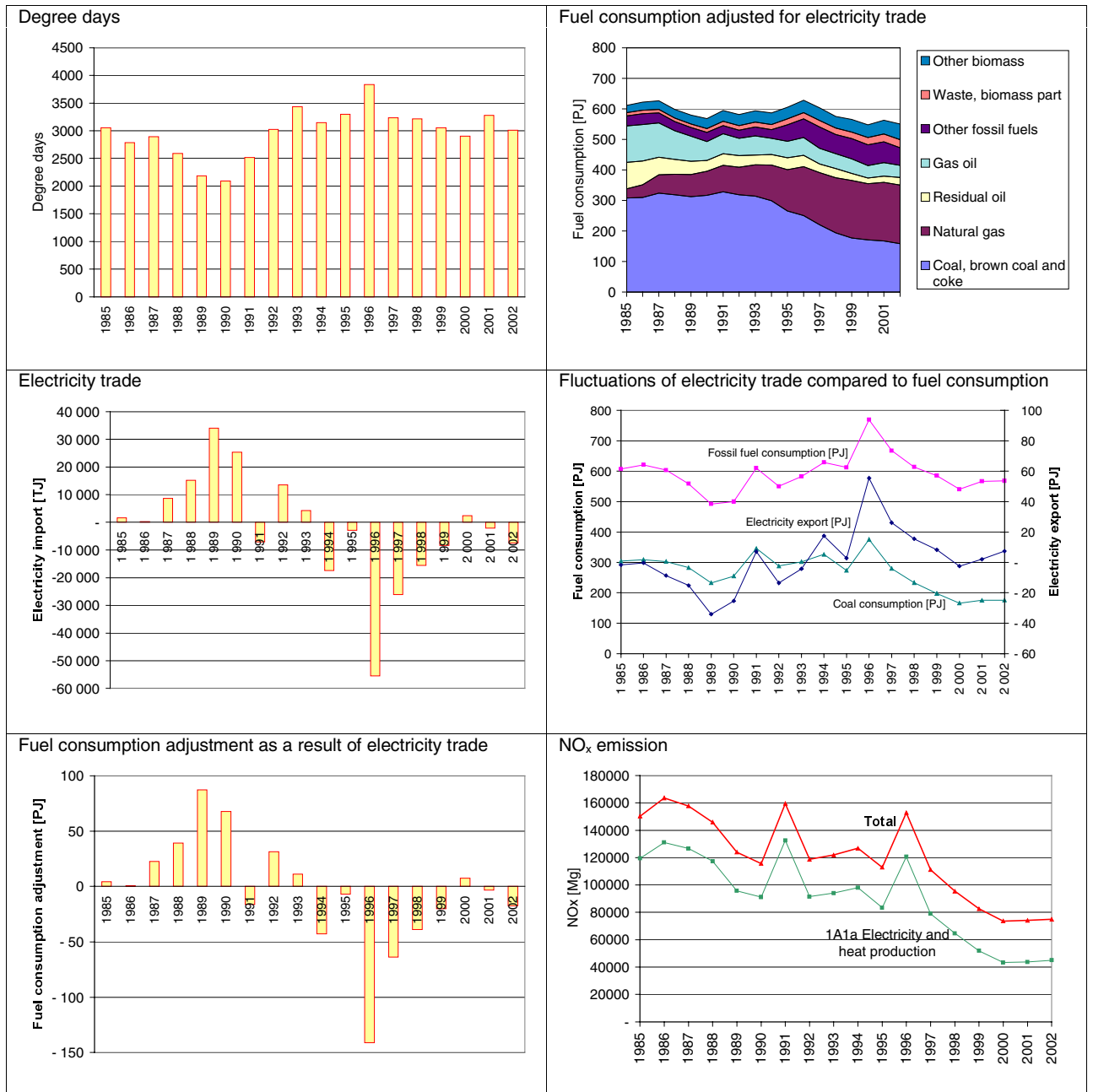


Figure 2A-4 Comparison of time series fluctuations for electricity trade, fuel consumption and NO_x emission (DEA 2003b)

3 SO₂, NO_x, NMVOC and CO

The emissions of SO₂, NO_x, NMVOC and CO from Danish stationary combustion plants 2002 are shown in Table 2A-3. SO₂ from stationary combustion plants accounts for 83% of the total Danish emission. NO_x, CO and NMVOC account for 37%, 29% and 15% of the total Danish emissions respectively.

Table 2A-3 SO₂, NO_x, NMVOC and CO emission from stationary combustion 2002 ¹⁾

Pollutant	NO _x Gg	CO Gg	NMVOC Gg	SO ₂ Gg
1A1 Fuel consumption, Energy industries	53,1	12,5	4,3	10,9
1A2 Fuel consumption, Manufacturing Industries and Construction (Stationary combustion)	14,4	5,2	0,9	6,6
1A4 Fuel consumption, Other sectors (Stationary combustion)	7,4	149,4	13,4	3,6
Total emission from stationary combustion plants	74,9	167,2	18,6	21,1
Total Danish emission (gross)	200	577	124	25
	%			
Emission share for stationary combustion	37,4	29,0	15,0	83,3

1) Only emission from stationary combustion plants in the sectors is included

3.1 SO₂

Stationary combustion is the most important emission source for SO₂ accounting for 85% of the total Danish emission. Table 2A-4 and Figure 2A-5 show the SO₂ emission inventory for the stationary combustion subsectors.

Electricity and heat production is the largest emission source accounting for 48% of the emission, but the SO₂ emission share is somewhat smaller than the fuel consumption share of the sector, which is 59%. This is possible due to the effective flue gas desulphurization plants installed in power plants combusting coal. Figure 2A-6 shows the SO₂ emission from *Electricity and heat production* on a disaggregated level. Power plants >300MW_{th} is the main emission source accounting for 73% of the emission.

The SO₂ emission from *Industry* is 31%, which is a remarkably large emission compared with the fuel consumption share. The main emission sources in the industry sector are combustion of coal and residual oil, but also emissions from cement industry and from industrial combustion of petroleum coke are considerable emission sources. Some years ago SO₂ emission from the industry sector only accounted for a small part of the total emission, but as a result of the reduced emissions from power plants the share has now increased.

Time series for SO₂ emission from stationary combustion are shown in Figure 2A-7. SO₂ emission from stationary combustion plants has decreased by 95% from 1980 and 83% from 1995. The large emission decrease is mainly a result of the reduced emission from *Electricity and heat production* that have been possible due to installation of desulphurization plants and due to the use of fuels with lower content of sulphur. Despite the considerable reduction of emission from electricity and heat production plants, they still account for 48% of the total emission from stationary combustion as mentioned above. The emission from other sectors also decreased considerably since 1980.

Table 2A-4 SO₂ emission from stationary combustion plants 2002 ¹⁾

SO ₂	2002	
1A1a Electricity and heat production	9936	Mg
1A1b Petroleum refining	927	Mg
1A1c Solid fuel transf. and other energy industries	9	Mg
1A2f Industry	6563	Mg
1A4a Commercial / Institutional	553	Mg
1A4b Residential	1787	Mg
1A4c Agriculture / Forestry / Fishing	1284	Mg
Total	21058	Mg

1) Only emission from stationary combustion plants in the sectors is included

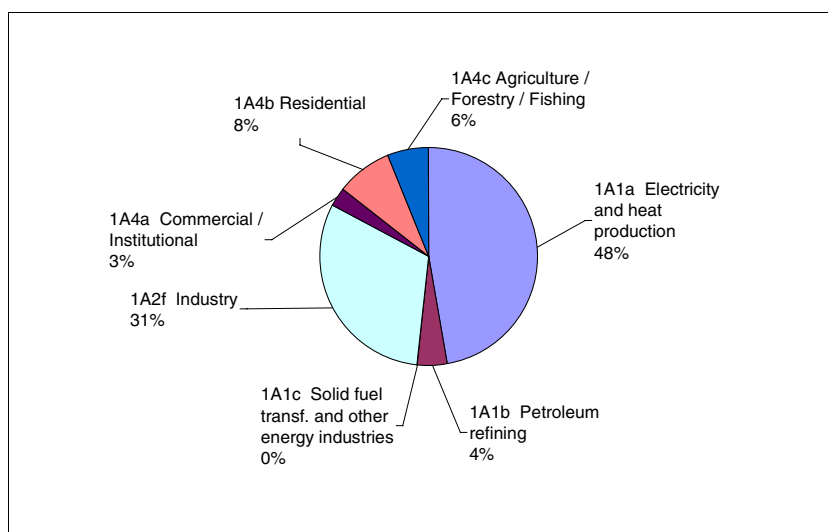


Figure 2A-5 SO₂ emission contribution for stationary combustion

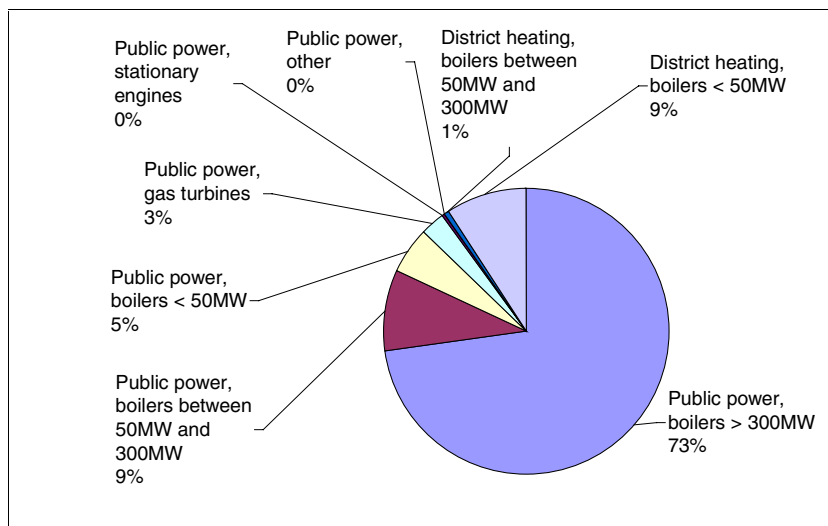


Figure 2A-6 Disaggregated SO₂ emissions from Energy and heat production

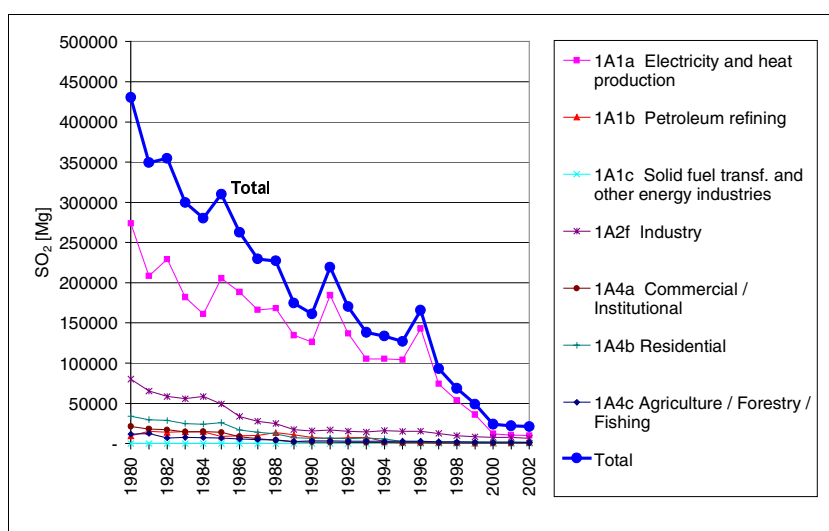


Figure 2A-7 SO₂ emission time series for stationary combustion

3.2 NO_x

Stationary combustion accounts for 37% of the total Danish NO_x emission. Table 2A-5 and Figure 2A-8 show the NO_x emission inventory for stationary combustion subsectors.

Electricity and heat production is the largest emission source accounting for 60% of the emission from stationary combustion plants. Power plants >50MW_{th} are the main emission source in this sector accounting for 68% of the emission.

Industrial combustion plants are also an important emission source accounting for 19% of the emission. The main industrial emission source is cement production that accounts for 62% of the emission.

Residential plants accounts for 7% of the NO_x emission. The fuel origin of this emission is mainly wood, gas oil and natural gas accounting for 36%, 31% and 22% of the residential plant emission respectively.

Time series for NO_x emission from stationary combustion are shown in Figure 2A-9. NO_x emission from stationary combustion plants has decreased by 50% from 1985 and 34% from 1995. The reduced emission is mainly a result of the reduced emission from *Electricity and heat production* due to installation of low NO_x burners and selective catalytic reduction (SCR) units. The fluctuations of the time series follow the fluctuations of *Electricity and heat production*, which is a result of electricity trade fluctuations. The NO_x emission from all subsectors has decreased since 1985.

Table 2A-5 NO_x emission from stationary combustion plants 2002¹⁾

	2002	
1A1a Electricity and heat production	44964	Mg
1A1b Petroleum refining	1554	Mg
1A1c Solid fuel transf. and other energy industries	6555	Mg
1A2f Industry	14412	Mg
1A4a Commercial / Institutional	1077	Mg
1A4b Residential	4909	Mg
1A4c Agriculture / Forestry / Fishing	1460	Mg
Total	74931	Mg

1) Only emission from stationary combustion plants in the sectors is included

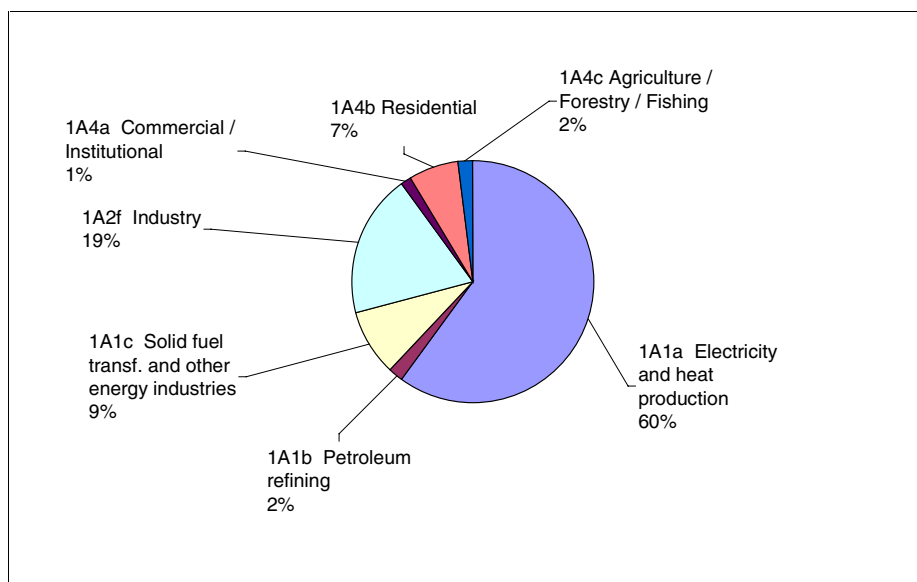


Figure 2A-8 NO_x emission sources, stationary combustion plants, 2002

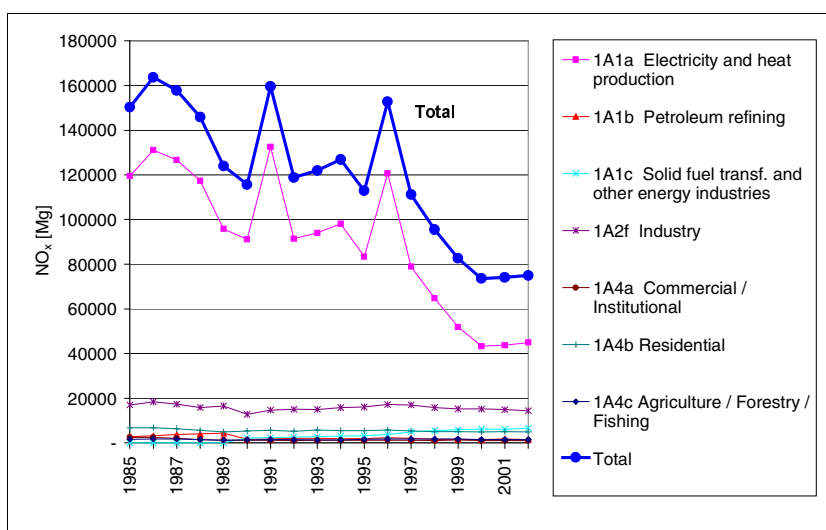


Figure 2A-9 NO_x emission time series for stationary combustion

3.3 NMVOC

Stationary combustion plants account for 15% of the total Danish NMVOC emission. Table 2A-6 and Figure 2A-10 show the NMVOC emission inventory for the stationary combustion subsectors.

Residential plants are the largest emission source accounting for 59% of the total emission from stationary combustion plants. The NMVOC emission from residential plants is mainly emitted from wood and straw combustion, see Figure 2A-11.

Electricity and heat production is also a considerable emission source accounting for 23% of the total emission. Lean-burn gas engines have a relatively high NMVOC emission factor and are the most important emission source in this subsector (see Figure 2A-11). The gas engines are either natural gas or biogas fuelled.

Time-series for NMVOC emission from stationary combustion are shown in Figure 2A-12. The emission has increased by 40% from 1985 and 14% from 1995. The increased emission is mainly a result of the increased use of lean-burn gas engines in CHP plants.

The emission from residential plants is relatively constant, but the NMVOC emission from wood combustion almost doubled since 1990 due to increased wood consumption. However the emission from straw combustion in farm-house boilers have decreased at the same time.

The use of wood in residential boilers and stoves is relatively low in 1998-99 resulting in a dive of emission level these years.

Fuel consumption rates 1985-1989 for the sector agriculture/forestry/fishing have not been updated according to the new energy statistics. This leads to a sudden increase in emission between 1989 and 1990 that is not correct.

Table 2A-6 NMVOC emission from stationary combustion plants 2002 ¹⁾

	2002	
1A1a Electricity and heat production	4240	Mg
1A1b Petroleum refining	4	Mg
1A1c Solid fuel transf. and other energy industries	55	Mg
1A2f Industry	926	Mg
1A4a Commercial / Institutional	748	Mg
1A4b Residential	10964	Mg
1A4c Agriculture / Forestry / Fishing	1657	Mg
Total	18594	Mg

1) Only emission from stationary combustion plants in the sectors is included

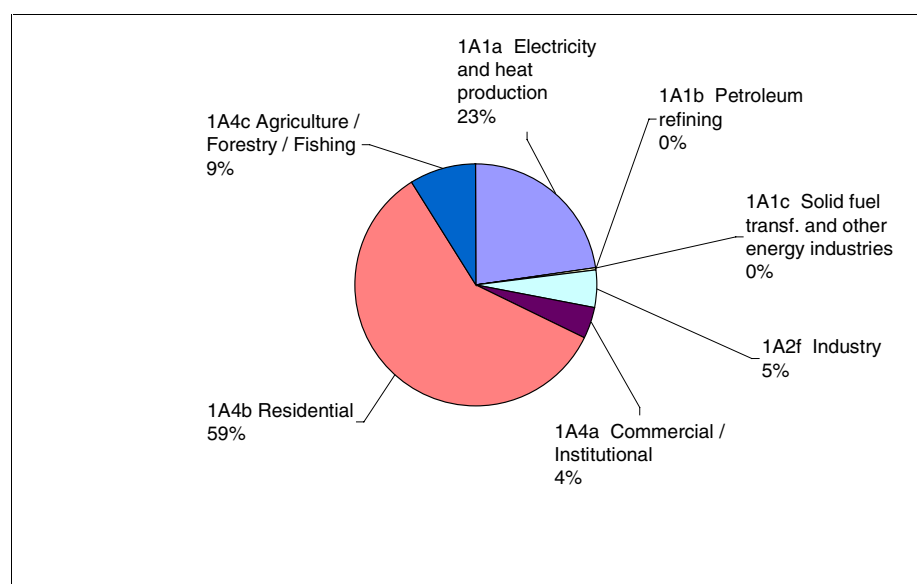


Figure 2A-10 NMVOC emission sources, stationary combustion plants, 2002

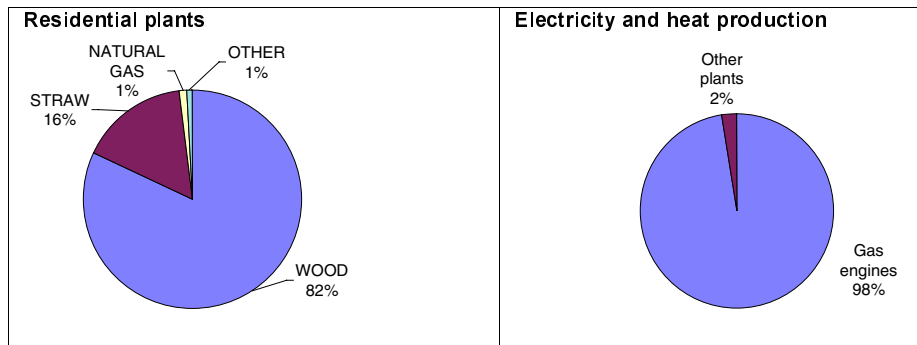


Figure 2A-11 NMVOC emission from residential plants and from electricity and heat production, 2002

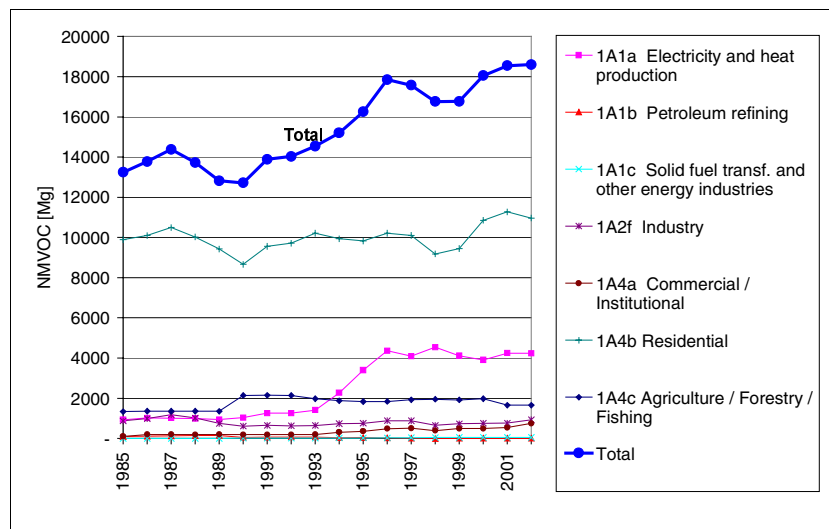


Figure 2A-12 NMVOC emission time series for stationary combustion

3.4 CO

Stationary combustion accounts for 29% of the total Danish CO emission. Table 2A-7 and Figure 2A-13 show the CO emission inventory for stationary combustion subsectors.

Residential plants are the largest emission source accounting for 88% of the emission. Wood combustion accounts for 90% of the emission from residential plants, see Figure 2A-14. This in spite of the fact that the fuel consumption share is only 19%. Combustion of straw is also a considerable emission source whereas the emission from other fuels used in residential plants is almost negligible.

Time series for CO emission from stationary combustion is shown in Figure 2A-15. The emission has increased by 40% from 1985 and 6% from 1995. The time series for stationary combustion plants follow the time series for residential plants.

The wood consumption in residential plants increased 65% since 1990 causing an increase of the CO emission. The increase in CO from residential plants is less than the increase in wood consumption because CO emission from straw fired farmhouse boilers has decreased considerably. Both the annual straw

consumption in residential plants and the CO emission factor for farmhouse boilers have decreased.

Table 2A-7 CO emission from stationary combustion plants 2002 ¹⁾

	2002	
1A1a Electricity and heat production	11528	Mg
1A1b Petroleum refining	263	Mg
1A1c Solid fuel transf. and other energy industries	749	Mg
1A2f Industry	5203	Mg
1A4a Commercial / Institutional	909	Mg
1A4b Residential	147045	Mg
1A4c Agriculture / Forestry / Fishing	1480	Mg
Total	167176	Mg

1) Only emission from stationary combustion plants in the sectors is included

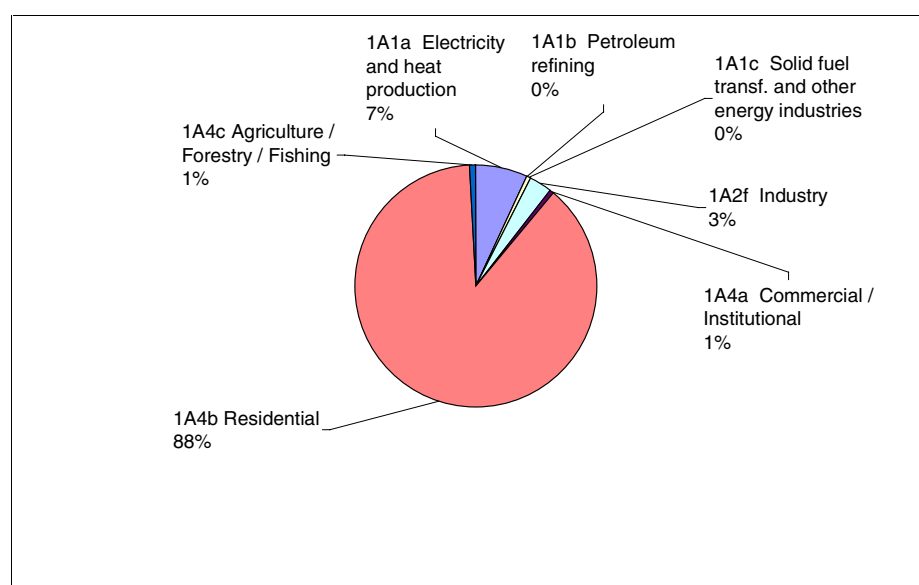


Figure 2A-13 CO emission sources, stationary combustion plants, 2002

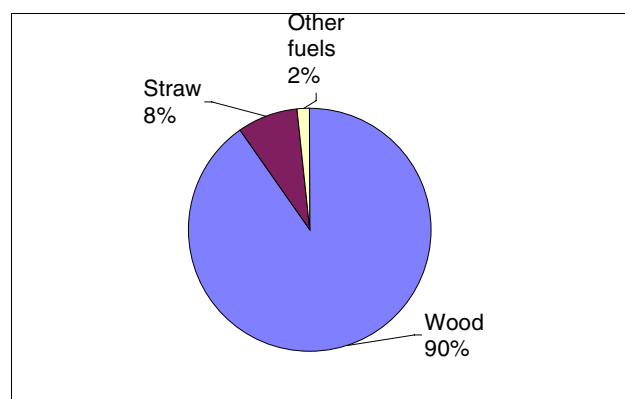


Figure 2A-14 CO emission sources, residential plants, 2002

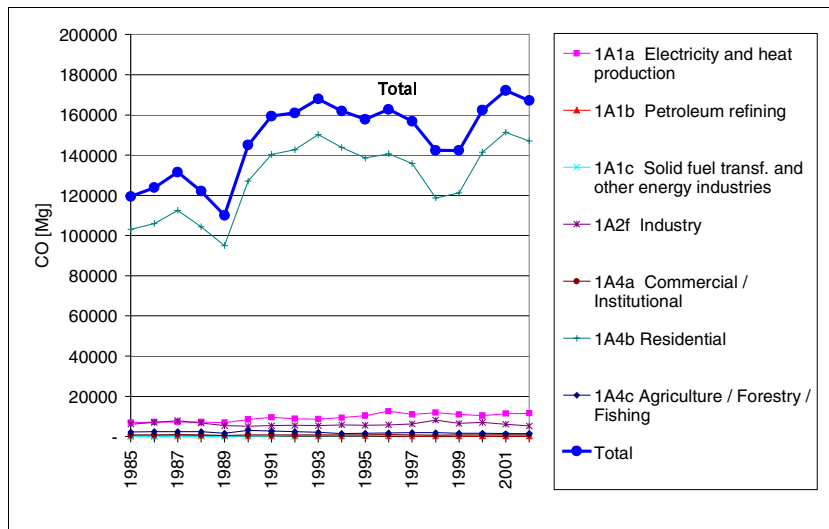


Figure 2A-15 CO emission time series for stationary combustion

4 Particulate matter (PM)

The emission of TSP, PM₁₀ and PM_{2.5} from Danish stationary combustion plants 2002 is shown in Table 2A-8.

So far only PM emissions from stationary combustion, transport, agriculture and part of the industry have been included in the Danish inventory. TSP from stationary combustion accounts for 16% of the total Danish emission. The emission shares for PM₁₀ and PM_{2.5} are 22% and 30% respectively.

Table 2A-8 Danish PM emissions 2002

Pollutant	TSP Mg	PM ₁₀ Mg	PM _{2.5} Mg
1A1 Fuel combustion, Energy industries	1332	1074	903
1A2 Fuel combustion, Manufacturing Industries and Construction (Stationary combustion)	655	519	333
1A4 Fuel combustion, Other sectors (Stationary combustion)	3415	3223	3026
Total emission from stationary combustion plants	5402	4816	4261
Total Danish emission (gross)	33788	22112	14316
		%	
Emission share for stationary combustion	16,0	21,8	29,8

Table 2A-9 and Figure 2A-16 show the PM emission inventory for the stationary combustion subsectors. Residential plants are the largest emission source accounting for 65% of the PM_{2.5} emission from stationary combustion plants.

The primary sources of PM emission are:

- Residential boilers, stoves and fireplaces combusting wood
- Farmhouse boilers combusting straw
- Power plants primarily combusting coal
- Coal and residual oil combusted in industrial boilers and processes

Furthermore there are considerable emissions from:

- Residential boilers using gas oil
- Refineries

The PM emission from wood combusted in residential plants is the predominant source. Thus 47% of the PM_{2.5} emission from stationary combustion is emitted from residential wood combustion. This corresponds to 14% of the overall Danish emission. A literature survey (Nielsen et al 2003) has shown that the uncertainty of the emission factors for residential combustion of wood in stoves and boilers is huge.

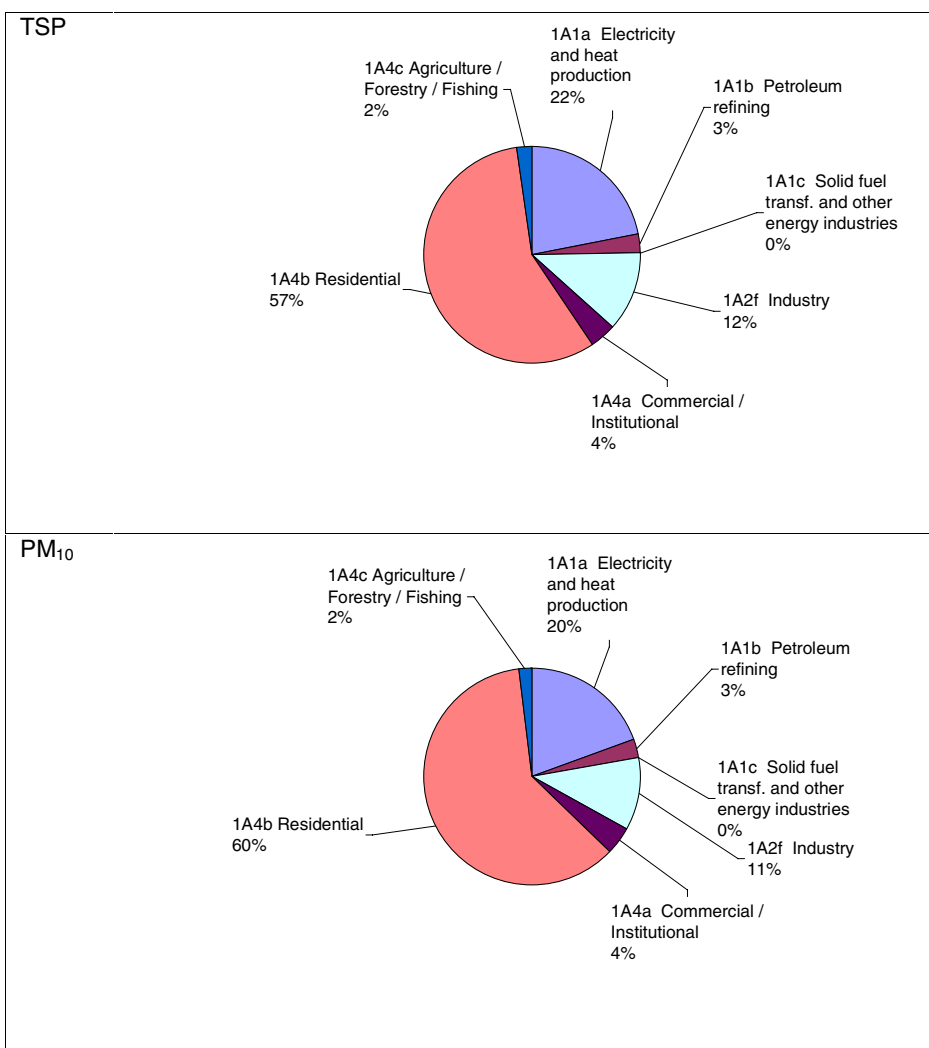
In Figure 2A-17 fuel consumption and PM_{2.5} emission of residential plants is shown. Wood combustion accounts for 72% of the PM_{2.5} emission from residential plants in spite of the limited wood consumption share.

Emission inventories for PM have only been reported for the years 2000-2002 and the short time series for TSP, PM₁₀ and PM_{2.5} emission is shown in Figure 2A-18.

Table 2A-9 PM emission from stationary combustion plants, 2002

	TSP	PM ₁₀	PM _{2.5}	
1A1a Electricity and heat production	1187	943	778	Mg
1A1b Petroleum refining	142	128	122	Mg
1A1c Solid fuel transf. and other energy industries	3	3	3	Mg
1A2f Industry	655	519	333	Mg
1A4a Commercial / Institutional	204	195	181	Mg
1A4b Residential	3096	2936	2770	Mg
1A4c Agriculture / Forestry / Fishing	115	92	75	Mg
Total	5402	4816	4261	Mg

1) Only emission from stationary combustion plants in the sectors is included



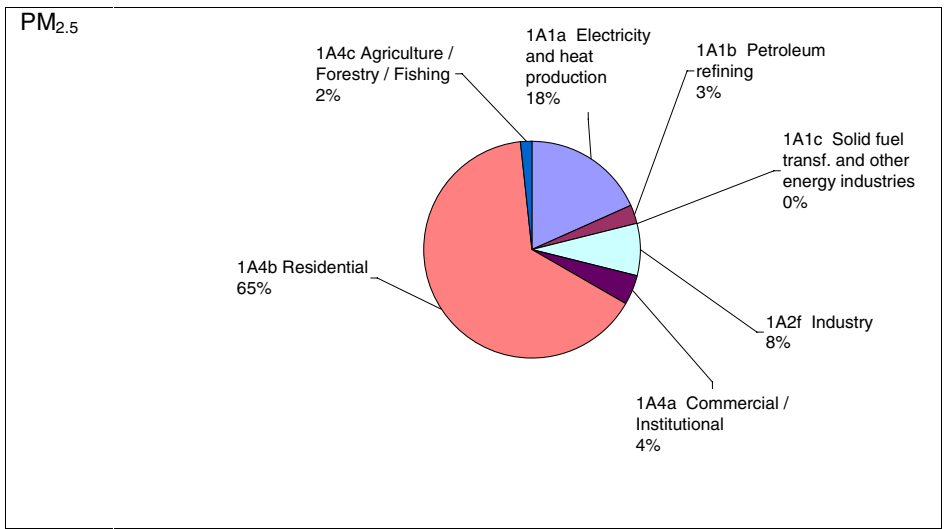


Figure 2A-16 PM emission sources, stationary combustion plants, 2002

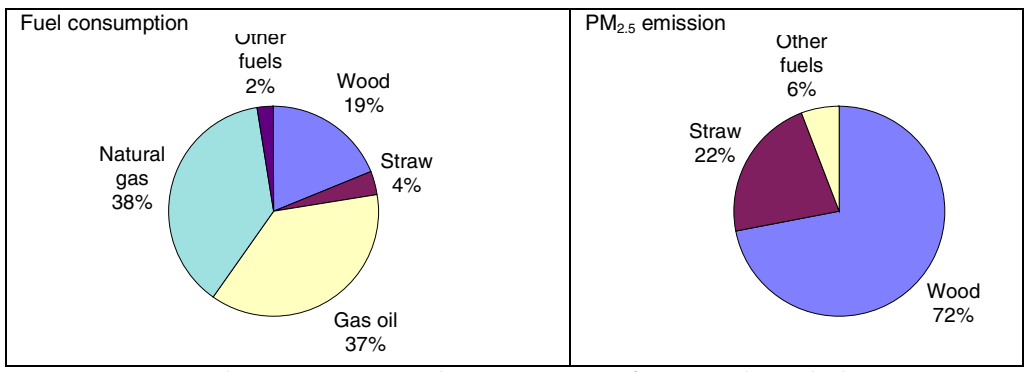


Figure 2A-17 Fuel consumption and PM_{2.5} emission from residential plants

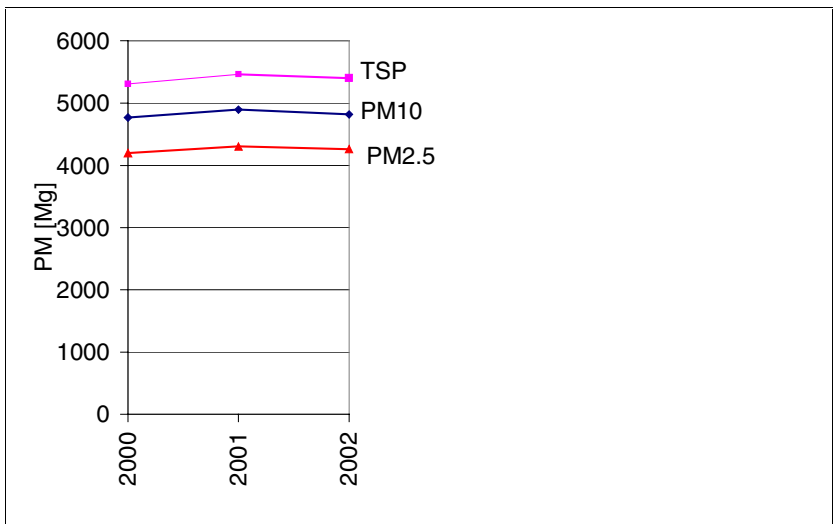


Figure 2A-18 PM emission time series for stationary combustion

5 Heavy metals

Emission inventories for 9 heavy metals are reported to the LRTAP Convention. Three of the metals are considered priority metals: Pb, Cd and Hg. The 2002 emissions are shown in Table 2A-10.

Stationary combustion plants are the most important emission sources for heavy metals. For Cu the emission share from stationary combustion plants is 12%, but for all other heavy metals the emission share is more than 50%, see Table 2A-10.

Table 2A-10 The emission of heavy metals in 2002, reported to the LRTAP Convention in 2004

Pollutant	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1A1 Fuel combustion, Energy industries	2,33	0,23	0,66	0,41	0,51	0,65	4,53	0,73	13,64
1A2 Fuel combustion, Manufacturing Industries and Construction (Stationary combustion)	0,29	0,20	0,28	0,19	0,31	0,22	5,36	0,13	1,60
1A4 Fuel combustion, Other sectors (Stationary combustion)	0,23	0,15	0,22	0,08	0,11	0,19	1,24	0,19	2,64
Total emission from stationary combustion plants	2,85	0,58	1,16	0,68	0,93	1,05	11,13	1,06	17,88
Total Danish emission (gross)	5,25	0,66	1,19	0,77	1,64	8,68	13,38	1,88	23,54
	%								
Emission share for stationary combustion	54,2	86,8	98,1	89,1	56,9	12,1	83,2	56,1	75,9

Table 2A-11 and Figure 2A-19 show the heavy metal emission inventory for the stationary combustion subsectors. The sectors *Electricity and heat production* and *Industry* have the highest emission shares. *Electricity and heat production* accounts for 80%, 37% and 56% of the emission of the priority metals Pb, Cd and Hg respectively.

Table 2A-11 Heavy metal emission from stationary combustion plants, 2002¹⁾

	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
1A1a Electricity and heat production	395	211	466	628	658	3651	2299	714	13632 kg
1A1b Petroleum refining	19	18	45	18	6	875	32	17	4 kg
1A1c Solid fuel transf. and other energy industries	0	0	0	0	0	0	0	0	0 kg
1A2f Industry	187	199	314	219	276	5363	287	135	1601 kg
1A4a Commercial / Institutional	20	14	20	20	43	233	46	23	185 kg
1A4b Residential	38	111	35	141	156	118	134	138	2377 kg
1A4c Agriculture / Forestry / Fishing	25	22	51	27	25	888	50	29	81 kg
Total	684	576	932	1052	1163	11129	2848	1055	17880 kg

1) Only emission from stationary combustion plants in the sectors is included

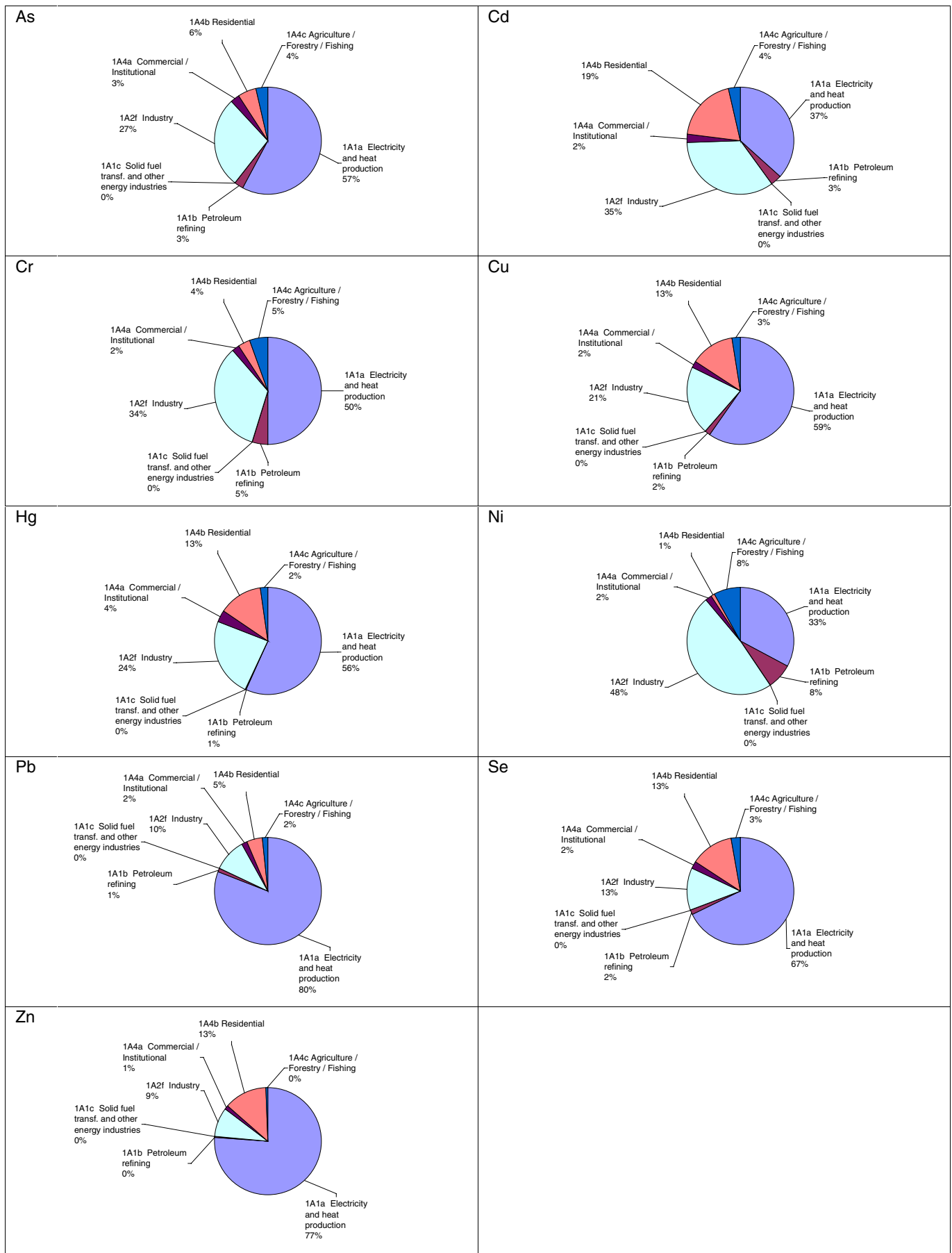


Figure 2A-19 Heavy metal emission sources, stationary combustion plants, 2002

Time series for heavy metal emissions are shown in Figure 2A-20. Time series are only shown for total emission from stationary combustion and for the two most important sectors: *Electricity and heat production* and *Industry-other*. The heavy metal emissions have decreased considerably since 1990, see Table 2A-12. The emissions have decreased despite of the increased incineration of municipal waste. This has been possible due to installation and improved performance of gas cleaning devices at waste incineration plants and also at the large power plants, which is another important emission source.

The As emission level decreased remarkably from 1994 to 1995. Plant specific emission data for power plants are available for all power plants from 1995 onwards and the general point source emission factor for power plants might have been overestimated.

Table 2A-12 Decrease of heavy metal emission 1990-2002

Pollutant	Decrease since 1990
As	51%
Cd	45%
Cr	84%
Cu	71%
Hg	64%
Ni	47%
Pb	80%
Se	70%
Zn	8%

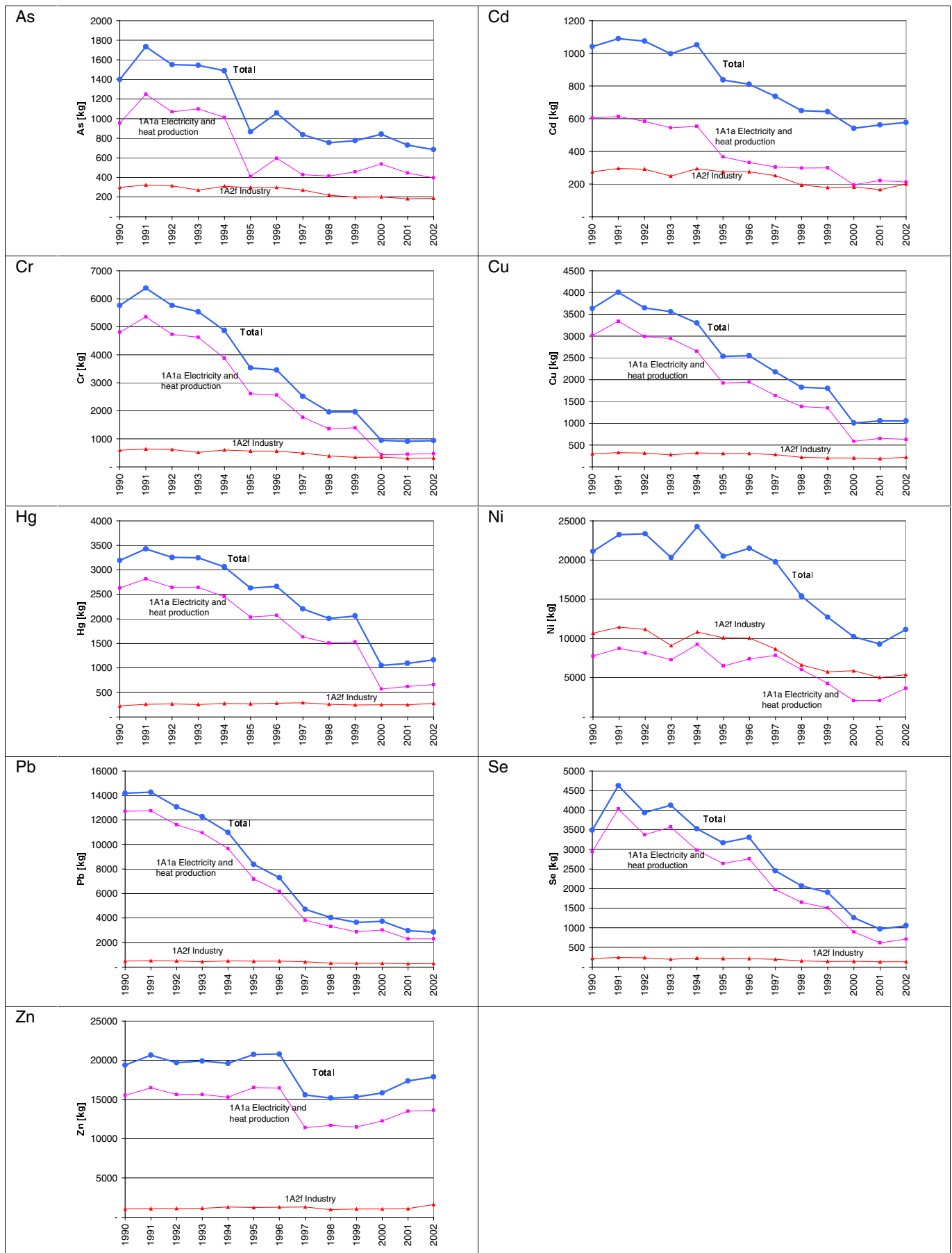


Figure 2A-20 Heavy metal emission time series, stationary combustion plants

6 PAH and dioxin

Emission inventories for 4 PAHs and for dioxin are reported to the LRTAP Convention. Dioxin emission inventories are estimated by COWI for the Danish Environmental Protection Agency (Hansen & Hansen 2003). The emission inventory for PAH is shown in Table 2A-13. Stationary combustion plants account for more than 90% of the PAH emission.

Table 2A-13 PAH emission, 2002, reported to the LRTAP Convention in 2004

Pollutant	Benzo(a)-pyrene Mg	Benzo(b)fluoranthene Mg	Benzo(k)fluoranthene Mg	Indeno(1,2,3-c,d)pyrene Mg
1A1 Fuel combustion, Energy industries	0,01	0,04	0,02	0,01
1A2 Fuel combustion, Manufacturing Industries and Construction (Stationary combustion)	0,03	0,10	0,02	0,01
1A4 Fuel combustion, Other sectors (Stationary combustion)	2,80	3,65	1,21	2,04
Total emission from stationary combustion plants	2,84	3,79	1,24	2,06
Total Danish emission (gross)	2,89	3,87	1,33	2,13
Emission share for stationary combustion	98,1	97,9	93,6	96,6

Table 2A-14 and Figure 2A-21 show the PAH emission inventory for the stationary combustion subsectors. Residential combustion is the largest emission source. Combustion of wood is the predominant source accounting for more than 97% of the emission in residential plants, see Figure 2A-22.

Time series for PAH emission is shown in Figure 2A-23. The increasing emission trend is a result of the increased combustion of wood in residential plants. The time series for wood combustion in residential plants is also shown in Figure 2A-23.

Table 2A-14 PAH emission from stationary combustion plants, 2002

	Benzo(a)-pyrene Mg	Benzo(b)-fluoranthene Mg	Benzo(k)-fluoranthene Mg	Indeno(1,2,3-c,d)pyrene Mg
1A1a Electricity and heat production	10	40	16	11
1A1b Petroleum refining	0	1	0	0
1A1c Solid fuel transf. and other energy industries	0	0	0	0
1A2f Industry	26	97	22	8
1A4a Commercial / Institutional	164	216	72	117
1A4b Residential	2534	3319	1107	1789
1A4c Agriculture / Forestry / Fishing	105	117	28	131
Total	2840	3790	1244	2056

1) Only emission from stationary combustion plants in the sectors is included

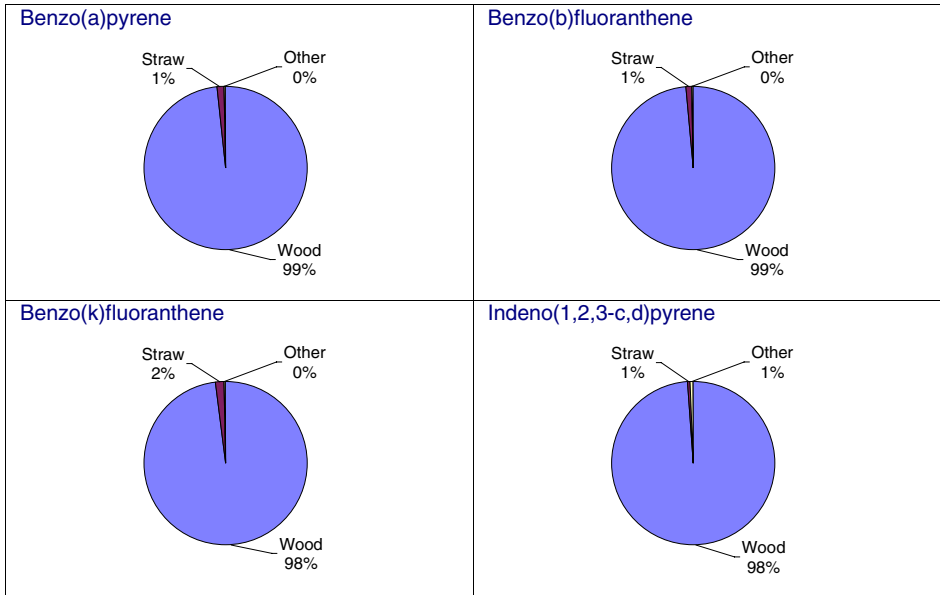


Figure 2A-21 PAH emission from residential combustion plants (stationary), fuel origin

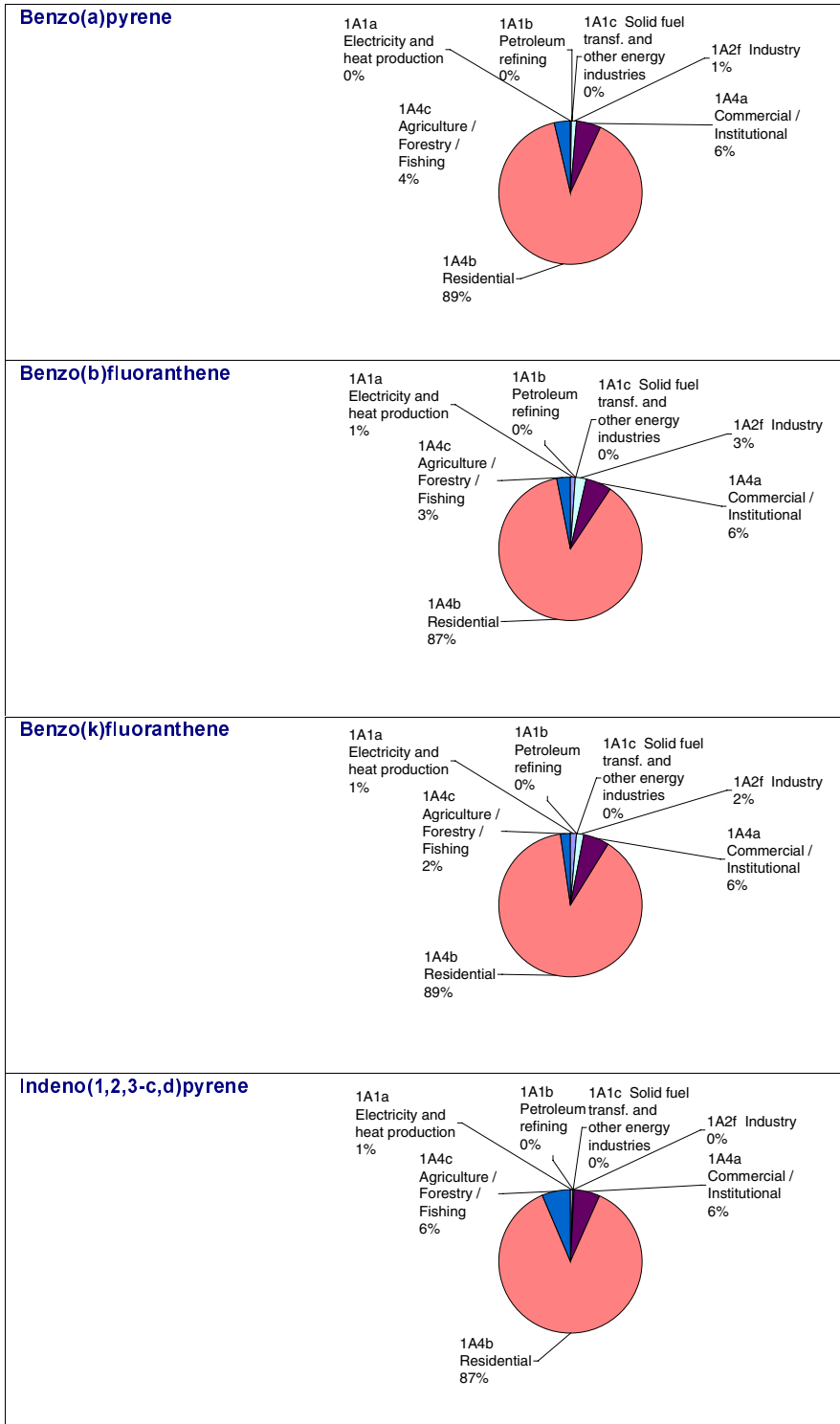


Figure 2A-22 PAH emission sources, stationary combustion plants, 2002

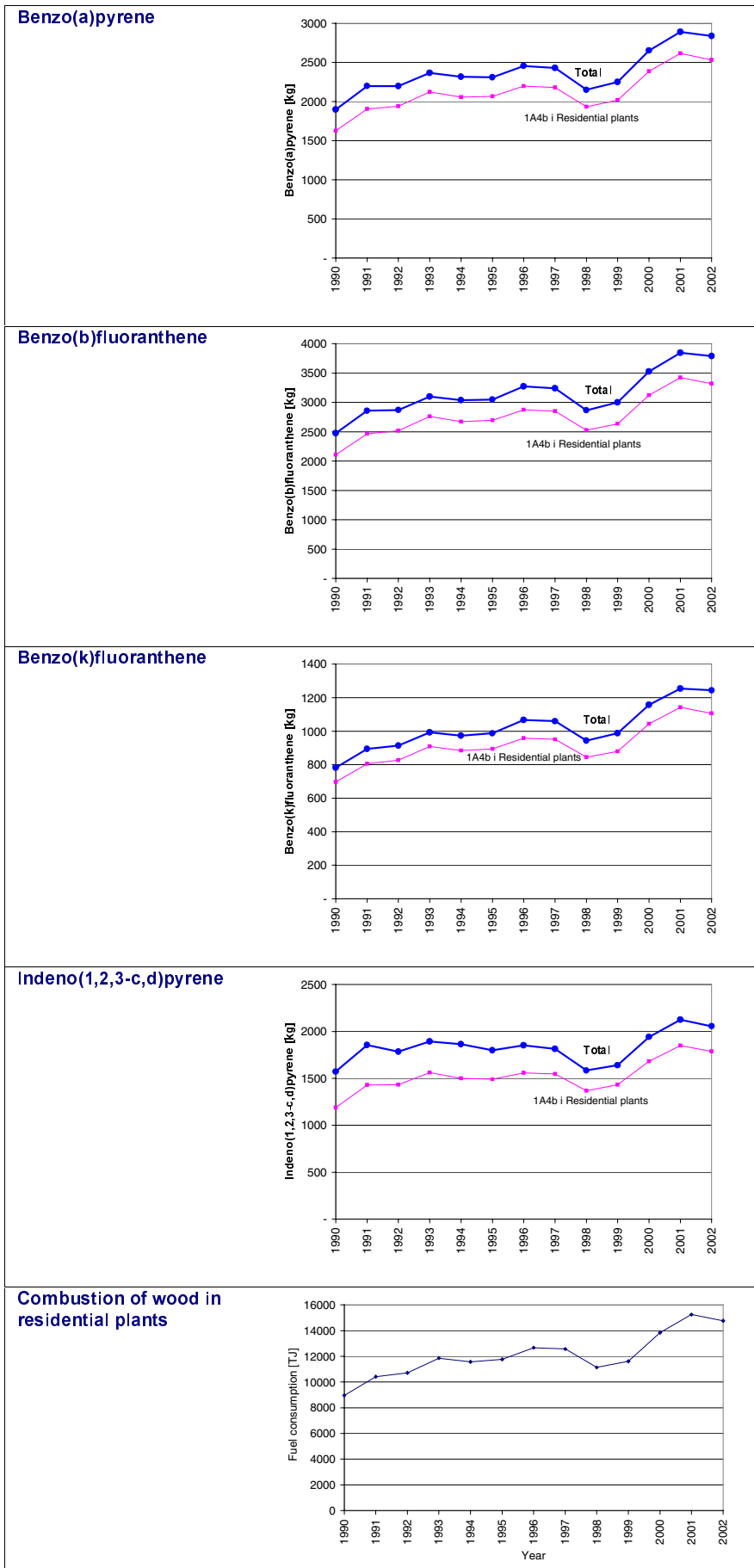


Figure 2A-23 PAH emission time series, stationary combustion plants. Comparison with wood consumption in residential plants.

6.1 Other data control procedures

A formal QA/QC plan has not yet been developed, but a number of quality control (QC) procedures are performed. The QC procedures for stationary combustion includes:

- Check of time series for each NFR and SNAP source categories. Considerable changes are controlled and explained.
- Comparison to inventory of the previous year. Any major changes are verified
- Total emission when aggregated to NFR are compared to totals based on SNAP source categories (control of data transfer)
- A manual log Table 2A-in the emission databases is applied to collect information about recalculations
- The reference approach included in the greenhouse gas emission reportings to IPCC validates the fuel consumption rates. Fuel consumption rates are within 2,0% difference (1990-2002).
- The emission from each large point source is compared to the emission reported the previous year.
- Some automated checks have been prepared for the emission databases:
 - Check of units for fuel rates, emission factors and plant specific emissions
 - Check of emission factors of large point sources. Emission factors of pollutants that are not plant specific should be the same as the emission factor that are defined for area sources.
 - Additional checks of database consistency
- Most emission factor references are now implemented in the emission database itself.
- Annual environmental reports are kept for subsequent control of plant specific emission data
- QA/QC checks of the country specific emission factors have not been performed but most factors are based on work from companies that have implemented some QA/QC work. The two major power plant owners / operators in Denmark: E2 and Elsam both obtained the ISO 14001 certification for environmental management system. Danish Gas Technology Centre and dk-Teknik both run accredited laboratories for emission measurements.

7 Uncertainty

7.1 Methodology

The IPCC methodologies for uncertainty estimates have been adopted for the LRTAP Convention reportings (Pulles & Aardenne 2002). The Danish uncertainty estimates are based on the simple tier 1 approach.

The uncertainty estimates are based on emission data for the base year and year 2002 and on uncertainties for fuel consumption and emission factors for each of the main SNAP sectors. For particulate matter year is 2000 is considered base year but for all other pollutants the base year is 1990. The applied uncertainties for activity rates and emission factors are default values referring to Pulles & Aardenne 2002. The uncertainty for PM is however estimated by NERI. The default uncertainties for emission factors are given in letter codes representing an uncertainty range. It has been assumed that the uncertainties were in the lower end of the range for all sources and pollutants. The applied uncertainties for emission factors are shown in Table 2A-15. The uncertainty for fuel consumption in stationary combustion plants was assumed to be 2%.

Table 2A-15 Uncertainty rates for emission factors

SNAP sector	SO ₂	NO _x	NMVOG	CO	PM	HM	PAH
01	10	20	50	20	50	100	100
02	20	50	50	50	500	1000	1000
03	10	20	50	20	50	100	100

7.2 Results

Uncertainty estimates include uncertainty of the total emission as well as uncertainty of the trend. The estimated uncertainties for stationary combustion emission inventories are shown in Table 2A-16. Detailed calculation sheets are shown in Appendix 2A-6.

The total emission uncertainty is 7% for SO₂, 16% for NO_x, 38% for NMVOG and 45% for CO. For all other pollutants the uncertainty is more than 100%.

Table 2A-16 Danish uncertainty estimates, 2002

Pollutant	Uncertainty Total emission [%]	Trend 1990 ¹)-2002 [%]	Uncertainty Trend [%-age points]
SO ₂	7	-87	±0,6
NO _x	16	-35	±2,5
NMVOG	38	46	±15
CO	45	15	±3
TSP ¹⁾	295	1,5	±3,3
PM ₁₀ ¹⁾	320	1,0	±2,7
PM _{2,5} ¹⁾	345	1,5	±4,1
As	130	-50	±14
Cd	246	-43	±61
Cr	101	-78	±14
Cu	175	-69	±27
Hg	200	-63	±34
Ni	125	-46	±12

Pb	94	-77	±5
Se	125	-59	±21
Zn	163	-9	±6
Benzo(b)fluoranthene	972	52	±9
Benzo(k)fluoranthene	970	59	±22
Benzo(a)pyrene	987	50	±5
Indeno(1,2,3-c,d)	991	31	±6

1. The base year for PM is year 2000

8 Improvements / recalculations

Recalculations since the 2003 emission inventory reportings include:

- Fuel consumption rates for a few stationary combustion sectors have been recalculated as a result of a new estimate for off road machinery.
- Emission factors for combined heat and power plants have been improved based on a Danish project including collection of existing emission data and performance of a large number of new emission measurements (Nielsen & Illerup 2003). The emission measurements included both: SO₂, NO_x, NMVOC, CO, PM, HM and PAH.
- Centralised power plants have been included in the emission databases as point sources in 1991-1994 (was already included as point sources in databases for 1990 and 1995-2002). Plant specific SO₂ and NO_x emission factors are applied. However the area source emission factor applied in former inventories took into account the plant specific data and thus the estimated emissions is not changed considerably due to this improvement.
- The SO₂ and NO_x emission factors have been examined and time series inconsistencies have been corrected.
- HM emission factors for power plants have been changed for the years 1991-1993 due to inconsistencies with emission factors applied for 1990 and 1994.
- Fuel consumption rate for residential wood combustion has been updated according to the new energy statistics.
- PM emissions from refineries 2001 have been added

Further a few minor errors for large point sources have been corrected.

9 Future improvements

The planned improvements of the inventory includes:

1) Disaggregation of fuel consumption in the industrial sector

So far the Danish energy statistics aggregated to SNAP sectors have not specified fuel consumption rates for specific industries. The disaggregation is expected to be implemented in the reportings in 2005.

2) Energy statistics update

A full update of fuel consumption rates according to the updated energy statistics has not been carried out for a few years. A full update is expected to be part of the next emission inventory.

3) Improved documentation for emission factors

The documentation of the applied emission factors has been improved this year and will be further developed in future inventories.

4) Improved QA/QC and validation

The QA/QC and validation of the inventories for stationary combustion will be improved as part of the work that have been initiated for the Danish inventory as a whole.

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Appendix

Appendix 2A-1: Emission inventory for the year 2002 reported to the LRTAP Convention in 2004

Appendix 2A-2: NFR/SNAP source correspondence list

Appendix 2A-3: Fuel rate

Appendix 2A-4: Emission factors

Appendix 2A-5: Large point sources

Appendix 2A-6: Uncertainty estimates

Appendix 2A-7: Lower Calorific Value (LCV) of fuels

Appendix 2A-8: Emission inventory 2002 based on SNAP sectors

Appendix 2A-1 Emission inventory for the year 2002 reported to the LRTAP Convention in 2004

Table 2A-17 Emission inventory for the year 2002 reported to the LRTAP in 2004 (a)

	NO _x Gg NO ₂	CO Gg	NMVOC Gg	SO _x Gg SO ₂	TSP Mg	PM ₁₀ Mg	PM _{2.5} Mg
1 A 1 a Public Electricity and Heat Production	44,96	11,53	4,24	9,94	1187,44	942,70	778,29
1 A 1 b Petroleum refining	1,55	0,26	0,00	0,93	142,10	128,47	121,66
1 A 1 c Manufacture of Solid Fuels and Other Energy Industries	6,55	0,75	0,05	0,01	2,76	2,66	2,65
1 A 2 Manufacturing Industries and Construction	16,18	14,80	3,88	5,83	1314,75	1160,34	1039,63
1 A 2 a Iron and Steel	IE	IE	IE	IE	174,60	52,38	7,86
1 A 2 b Non-ferrous Metals	IE	IE	IE	IE	32,65	29,40	13,48
1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	IE
1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	IE
1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	IE
1 A 2 f Other (Please specify in a covering note)	9,32	1,18	0,10	1,00	441,91	383,89	234,62
1 A 3 a ii Civil Aviation (Domestic, LTO)	0,23	0,76	0,13	0,00	1,55	1,55	1,55
1 A 3 a ii Civil Aviation (Domestic, Cruise)	0,44	0,11	0,02	0,00	1,67	1,67	1,67
1 A 3 b Road Transportation	-	-	-	-	-	-	-
1 A 3 b i R.T., Passenger cars	32,43	247,45	19,80	0,20	723,49	723,49	723,49
1 A 3 b ii R.T., Light duty vehicles	10,15	16,45	1,91	0,06	1564,34	1564,34	1564,34
1 A 3 b iii R.T., Heavy duty vehicles	24,06	6,17	2,74	0,09	1166,66	1166,66	1166,66
1 A 3 b iv R.T., Mopeds & Motorcycles	0,11	13,84	2,90	0,00	53,18	53,18	53,18
1 A 3 b v R.T., Gasoline evaporation	NO	NO	7,46	NO	NO	NO	NO
1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	1371,20	1027,77	559,72
1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	962,14	481,07	259,78
1 A 3 c Railways	3,39	0,64	0,25	0,01	124,95	124,95	124,95
1 A 3 d ii National Navigation	8,64	20,02	11,37	2,02	604,09	575,05	547,46
1 A 3 e Other (Please specify in a covering note)	-	-	-	-	-	-	-
1 A 3 e i Pipeline compressors	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO
1 A 4 a Commercial / Institutional	1,08	0,91	0,75	0,55	203,70	195,34	180,80
1 A 4 b Residential	-	-	-	-	-	-	-
1 A 4 b i Residential plants	4,91	147,05	10,96	1,79	3096,18	2936,18	2770,17
1 A 4 b ii Household and gardening (mobile)	0,24	47,60	4,16	0,00	25,97	25,97	25,97
1 A 4 c Agriculture / Forestry / Fishing	-	-	-	-	-	-	-
1 A 4 c i Stationary	1,46	1,48	1,66	1,28	114,65	91,70	75,27
1 A 4 c ii Off-road Vehicles and Other Machinery	19,97	20,78	4,51	0,38	2012,45	1912,46	1818,47
1 A 4 c iii National Fishing	11,04	1,50	0,49	0,78	348,45	331,04	314,51
1 A 5 a Other, Stationary (including Military)	-	-	-	-	-	-	-
1 A 5 b Other, Mobile (Including military)	0,42	0,32	0,06	0,00	20,34	20,34	20,34
1B1 Fugitive Emissions from Solid Fuels	-	-	-	-	-	-	-
1 B 1 a Coal Mining and Handling	NA	21,26	NA	NA	939,30	375,72	37,57
1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO
1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO
1 B 2 Oil and natural gas	-	-	-	-	-	-	-
1 B 2 a Oil	-	-	-	-	-	-	-
1 B 2 a i Exploration Production, Transport	NO	NO	IE	IE	NO	NO	NO
1 B 2 a iv Refining / Storage	NO	NO	4,30	0,33	NO	NO	NO
1 B 2 a v Distribution of oil products	NO	NO	1,04	NO	NO	NO	NO
1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO
1 B 2 b Natural gas	-	NA	0,41	0,00	NA	NA	NA
1 B 2 c Venting and flaring	2,79	1,79	0,78	0,07	2,92	2,92	2,92
2 A MINERAL PRODUCTS (b)	-	-	-	-	-	-	-
2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	IE
2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	IE
2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	IE
2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	IE
2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE
2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE
2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	0,02	NE	172,00	43,00	6,88
2 B CHEMICAL INDUSTRY	-	-	-	-	-	-	-
2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO
2 B 2 Nitric Acid Production	0,40	NE	NE	NE	310,00	248,00	186,00
2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO
2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO
2 B 5 Other (Please specify in a covering note)	0,03	NE	0,03	NE	19,00	15,00	11,00
2 C METAL PRODUCTION	NA	NE	NE	NA	-	-	-
2 D OTHER PRODUCTION (b)	-	-	-	-	-	-	-
2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE
2 D 2 Food and Drink	NE	NE	0,53	NE	NE	NE	NE
2 G OTHER (Please specify in a covering note)	-	-	-	-	-	-	-

Table 2A-17 (a) continued

	NO _x Gg NO ₂	CO Gg	NMVOG Gg	SO _x Gg SO ₂	TSP Mg	PM ₁₀ Mg	PM _{2.5} Mg
3 A PAINT APPLICATION	NO	NO	23,22	-	-	-	-
3 B DEGREASING AND DRY CLEANING	NO	NO	NO	NO	NO	NO	NO
3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NO	NO	2,14	NO	-	-	-
3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NO	NO	12,64	NO	NO	NO	NO
4 B MANURE MANAGEMENT (c)	-	-	-	-	-	-	-
4 B 1 Cattle	IE	IE	IE	IE	IE	IE	IE
4 B 1 a Dairy	NA	NO	NA	NO	587,41	264,32	58,77
4 B 1 b Non-Dairy	NA	NO	NA	NO	1143,33	514,47	114,38
4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO
4 B 3 Sheep	NA	NO	NA	NO	NE	NE	NE
4 B 4 Goats	NA	NO	NA	NO	NE	NE	NE
4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO
4 B 6 Horses	NA	NO	NA	NO	NE	NE	NE
4 B 7 Mules and Asses	NO	NO	NO	NO	NO	NO	NO
4 B 8 Swine	NA	NO	NA	NO	12380,63	5571,54	1237,55
4 B 9 Poultry	NA	NO	NA	NO	2541,93	1144,22	253,99
4 B 13 Other	NA	NO	NA	NO	NE	NE	NE
4 C RICE CULTIVATION	NO	NO	NO	NO	NO	NO	NO
4 D AGRICULTURAL SOILS	-	-	-	-	-	-	-
4 D 1 Direct Soil Emission	NA	NO	1,21	NO	NE	NE	NE
4 F FIELD BURNING OF AGRICULTURAL WASTES	NO	NO	NO	NO	NO	NO	NO
4 G OTHER (d)	NO	NO	NO	NO	NO	NO	NO
5 B FOREST AND GRASSLAND CONVERSION	NO	NO	NO	NO	NO	NO	NO
6 A SOLID WASTE DISPOSAL ON LAND	NO	NO	NE	NO	NE	NE	NE
6 B WASTE-WATER HANDLING	NO	NO	NE	NO	NO	NO	NO
6 C WASTE INCINERATION (e)	NO	NO	NO	NO	NO	NO	NO
6 D OTHER WASTE (f)	NE	NE	NE	NE	NE	NE	NE
7 OTHER	NO	NO	NO	NO	NO	NO	NO
National Total	200,33	576,64	123,76	25,28	33788	22112	14316
Memo Items							
International Aviation (LTO)	1,01	0,64	0,12	0,01	3,63	3,63	3,63
International Aviation (Cruise)	7,70	0,96	0,26	0,06	29,53	29,53	29,53
International Navigation	81,29	6,91	2,17	39,61	4427,68	4206,30	3995,98
5 E Other	-	-	-	-	-	-	-
X (11 08 Volcanoes)	-	-	-	-	-	-	-

Table 2A-17 (b)

	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1 A 1 a Public Electricity and Heat Production	2,30	0,21	0,66	0,40	0,47	0,63	3,65	0,71	13,63
1 A 1 b Petroleum refining	0,03	0,02	0,01	0,02	0,05	0,02	0,87	0,02	0,00
1 A 1 c Manufacture of Solid Fuels and Other Energy Industries	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 A 2 Manufacturing Industries and Construction	0,26	0,18	0,11	0,13	0,30	0,54	5,32	0,12	1,67
1 A 2 a Iron and Steel	0,63	0,01	NE	0,03	0,10	NE	0,11	0,44	0,44
1 A 2 b Non-ferrous Metals	0,01	0,00	NE	NE	NE	0,00	NE	NE	-
1 A 2 c Chemicals	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 d Pulp, Paper and Print	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 e Food Processing, Beverages and Tobacco	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 2 f Other (Please specify in a covering note)	0,20	0,04	0,17	0,07	0,40	0,12	0,35	0,29	0,16
1 A 3 a ii Civil Aviation (Domestic, LTO)	1,33	0,00	-	-	0,00	0,02	0,00	0,00	0,01
1 A 3 a ii Civil Aviation (Domestic, Cruise)	-	0,00	-	-	0,00	0,06	0,00	0,00	0,03
1 A 3 b Road Transportation	-	-	-	-	-	-	-	-	-
1 A 3 b i R.T., Passenger cars	0,05	0,02	NE	NE	0,10	3,48	0,14	0,02	2,05
1 A 3 b ii R.T., Light duty vehicles	0,00	0,01	NE	NE	0,03	1,06	0,04	0,01	0,62
1 A 3 b iii R.T., Heavy duty vehicles	0,00	0,01	NE	NE	0,04	1,51	0,06	0,01	0,89
1 A 3 b iv R.T., Mopeds & Motorcycles	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,02
1 A 3 b v R.T., Gasoline evaporation	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 3 b vi R.T., Automobile tyre and brake wear	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 3 b vii R.T., Automobile road abrasion	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 3 c Railways	-	0,00	-	-	0,00	0,11	0,00	0,00	0,07
1 A 3 d ii National Navigation	0,02	0,00	0,01	0,03	0,02	0,10	1,52	0,04	0,13
1 A 3 e Other (Please specify in a covering note)	-	-	-	-	-	-	-	-	-
1 A 3 e i Pipeline compressors	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii Other mobile sources and machinery	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a Commercial / Institutional	0,05	0,01	0,04	0,02	0,02	0,02	0,23	0,02	0,19
1 A 4 b Residential	-	-	-	-	-	-	-	-	-
1 A 4 b i Residential plants	0,13	0,11	0,16	0,04	0,04	0,14	0,12	0,14	2,38
1 A 4 b ii Household and gardening (mobile)	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,03
1 A 4 c Agriculture / Forestry / Fishing	-	-	-	-	-	-	-	-	-
1 A 4 c i Stationary	0,05	0,02	0,02	0,02	0,05	0,03	0,89	0,03	0,08
1 A 4 c ii Off-road Vehicles and Other Machinery	0,00	0,00	-	-	0,02	0,66	0,03	0,00	0,39
1 A 4 c iii National Fishing	0,02	0,00	0,01	0,01	0,01	0,01	0,02	0,04	0,10
1 A 5 a Other, Stationary (including Military)	-	-	-	-	-	-	-	-	-
1 A 5 b Other, Mobile (Including military)	0,11	0,00	-	-	0,00	0,05	0,00	0,00	0,03
1B1 Fugitive Emissions from Solid Fuels	-	-	-	-	-	-	-	-	-
1 B 1 a Coal Mining and Handling	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 1 c Other (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 Oil and natural gas	-	-	-	-	-	-	-	-	-
1 B 2 a Oil	-	-	-	-	-	-	-	-	-
1 B 2 a i Exploration Production, Transport	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a iv Refining / Storage	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a v Distribution of oil products	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b Natural gas	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c Venting and flaring	-	-	-	-	-	-	-	-	-
2 A MINERAL PRODUCTS (b)	-	-	-	-	-	-	-	-	-
2 A 1 Cement Production	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2 Lime Production	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 3 Limestone and Dolomite Use	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 4 Soda Ash Production and use	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5 Asphalt Roofing	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 A 6 Road Paving with Asphalt	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B CHEMICAL INDUSTRY	-	-	-	-	-	-	-	-	-
2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2 Nitric Acid Production	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4 Carbide Production	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 5 Other (Please specify in a covering note)	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C METAL PRODUCTION	0,07	0,00	-	NE	-	0,05	-	NE	0,63
2 D OTHER PRODUCTION (b)	-	-	-	-	-	-	-	-	-
2 D 1 Pulp and Paper	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2 Food and Drink	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G OTHER (Please specify in a covering note)	-	-	-	-	-	-	-	-	-
3 A PAINT APPLICATION	-	-	-	-	-	-	-	-	-
3 B DEGREASING AND DRY CLEANING	NO	NO	NO	NO	NO	NO	NO	NO	NO
3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	-	-	-	-	-	-	-	-	-
3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO	NO	NO

Table 2A-17 (b) continued

	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
4 B MANURE MANAGEMENT (c)	-	-	-	-	-	-	-	-	-
4 B 1 Cattle	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 1 b Non-Dairy	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3 Sheep	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 4 Goats	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6 Horses	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 7 Mules and Asses	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8 Swine	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 9 Poultry	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 13 Other	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 C RICE CULTIVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 D AGRICULTURAL SOILS	-	-	-	-	-	-	-	-	-
4 D 1 Direct Soil Emission	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 F FIELD BURNING OF AGRICULTURAL WASTES	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 G OTHER (d)	NO	NO	NO	NO	NO	NO	NO	NO	NO
5 B FOREST AND GRASSLAND CONVERSION	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 A SOLID WASTE DISPOSAL ON LAND	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 B WASTE-WATER HANDLING	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 C WASTE INCINERATION (e)	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D OTHER WASTE (f)	NE	NE	NE	NE	NE	NE	NE	NE	NE
7 OTHER	NO	NO	NO	NO	NO	NO	NO	NO	NO
National Total	5,25	0,66	1,19	0,77	1,64	8,68	13,38	1,88	23,54
Memo Items									
International Aviation (LTO)	0,11	0,00	-	-	0,00	0,12	0,00	0,00	0,07
International Aviation (Cruise)	-	0,01	-	-	0,03	0,99	0,04	0,01	0,58
International Navigation	0,14	0,02	0,03	0,24	0,11	0,24	12,91	0,27	0,64
5 E Other	-	-	-	-	-	-	-	-	-
X (11 08 Volcanoes)	-	-	-	-	-	-	-	-	-

Table 2A-17 (c)

	Dioxin g I-tec	Benzo(a)pyre ne Mg	Benzo(b)fluor anthene Mg	Benzo(k)fluor anthene Mg	Indeno(1,3,3- c-d)pyrene Mg
1 A 1 a Public Electricity and Heat Production	4,700	0,010	0,040	0,016	0,011
1 A 1 b Petroleum refining	-	0,000	0,001	0,000	0,000
1 A 1 c Manufacture of Solid fuels and Other Energy Indus-	-	0,000	0,000	0,000	0,000
1 A 2 Manufacturing Industries and Construction	-	0,004	0,024	0,022	0,007
1 A 2 a Iron and Steel	1,460	-	-	-	-
1 A 2 b Non-ferrous Metals	0,400	-	-	-	-
1 A 2 c Chemicals	0,004	-	-	-	-
1 A 2 d Pulp, Paper and Print	-	-	-	-	-
1 A 2 e Food Processing, Beverages & Tobacco	-	-	-	-	-
1 A 2 f Other (Please specify in a covering note)	0,070	0,024	0,077	0,004	0,003
1 A 3 a ii Civil Aviation (Domestic, LTO)	-	0,000	0,000	0,000	0,000
1 A 3 a ii Civil Aviation (Domestic, Cruise)	-	-	-	-	-
1 A 3 b Road Transportation	0,200	-	-	-	-
1 A 3 b i R.T., Passenger cars	-	0,027	0,028	0,027	0,031
1 A 3 b ii R.T., Light duty vehicles	-	0,014	0,013	0,012	0,013
1 A 3 b iii R.T., Heavy duty vehicles	-	0,003	0,019	0,027	0,005
1 A 3 b iv R.T., Mopeds & Motorcycles	-	0,001	0,001	0,001	0,001
1 A 3 b v R.T., Gasoline evaporation	-	-	-	-	-
1 A 3 b vi R.T., Automobile tyre and brake wear	-	-	-	-	-
1 A 3 b vii R.T., Automobile road abrasion	-	-	-	-	-
1 A 3 c Railways	0,007	0,000	0,001	0,001	0,000
1 A 3 d ii National Navigation	1,300	0,001	0,003	0,002	0,005
1 A 3 e Other (Please specify in a covering note)	-	-	-	-	-
1 A 3 e i Pipeline compressors	-	-	-	-	-
1 A 3 e ii Other mobile sources and machinery	-	-	-	-	-
1 A 4 a Commercial / Institutional	-	0,164	0,216	0,072	0,117
1 A 4 b Residential	-	-	-	-	-
1 A 4 b i Residential plants	18,850	2,534	3,319	1,107	1,789
1 A 4 b ii Household and gardening (mobile)	3,300	0,000	0,000	0,000	0,000
1 A 4 c Agriculture / Forestry / Fishing	-	-	-	-	-
1 A 4 c i Stationary	-	0,105	0,117	0,028	0,131
1 A 4 c ii Off-road Vehicles and Other Machinery	-	0,004	0,008	0,008	0,004
1 A 4 c iii National Fishing	-	0,001	0,005	0,002	0,010
1 A 5 a Other, Stationary (including Military)	-	-	-	-	-
1 A 5 b Other, Mobile (including military)	-	0,000	0,000	0,000	0,000
1B1 Fugitive Emissions from Solid Fuels	-	-	-	-	-
1 B 1 a Coal Mining and Handling	-	-	-	-	-
1 B 1 b Solid fuel transformation	-	-	-	-	-
1 B 1 c Other (Please specify in a covering note)	-	-	-	-	-
1 B 2 Oil and natural gas	-	-	-	-	-
1 B 2 a Oil	-	-	-	-	-
1 B 2 a i Exploration Production, Transport	-	-	-	-	-
1 B 2 a iv Refining / Storage	-	-	-	-	-
1 B 2 a v Distribution of oil products	-	-	-	-	-
1 B 2 a vi Other	-	-	-	-	-
1 B 2 b Natural gas	-	-	-	-	-
1 B 2 c Venting and flaring	-	-	-	-	-
2 A MINERAL PRODUCTS (a)	-	-	-	-	-
2 A 1 Cement Production	0,800	-	-	-	-
2 A 2 Lime Production	-	-	-	-	-
2 A 3 Limestone and Dolomite Use	-	-	-	-	-
2 A 4 Soda Ash Production and use	-	-	-	-	-
2 A 5 Asphalt Roofing	-	-	-	-	-
2 A 6 Road Paving with Asphalt	0,041	-	-	-	-
2 A 7 Other including Non Fuel Mining & Construction	0,160	-	-	-	-
2 B CHEMICAL INDUSTRY	-	-	-	-	-
2 B 1 Ammonia Production	-	-	-	-	-
2 B 2 Nitric Acid Production	-	-	-	-	-
2 B 3 Adipic Acid Production	-	-	-	-	-
2 B 4 Carbide Production	-	-	-	-	-
2 B 5 Other (Please specify in a covering note)	-	-	-	-	-
2 C METAL PRODUCTION	-	-	-	-	-
2 D OTHER PRODUCTION (a)	-	-	-	-	-
2 D 1 Pulp and Paper	-	-	-	-	-
2 D 2 Food and Drink	-	-	-	-	-
2 G OTHER (Please specify in a covering note)	-	-	-	-	-
3 A PAINT APPLICATION	-	-	-	-	-
3 B DEGREASING AND DRY CLEANING	-	-	-	-	-
3 C CHEMICAL PRODUCTS, MANUFACTURE AND	-	-	-	-	-
3 D OTHER including products containing HMs and POPs	13,250	-	-	-	-

Table 2A-17 (c) continued

	Dioxin g I-tec	Benzo(a)- pyrene Mg	Benzo(b)- fluoranthene Mg	Benzo(k)- fluoranthene Mg	Indeno(1,2,3- c-d)pyrene Mg
4 B MANURE MANAGEMENT (b)	-	-	-	-	-
4 B 1 Cattle	-	-	-	-	-
4 B 1 a Dairy	-	-	-	-	-
4 B 1 b Non-Dairy	-	-	-	-	-
4 B 2 Buffalo	-	-	-	-	-
4 B 3 Sheep	-	-	-	-	-
4 B 4 Goats	-	-	-	-	-
4 B 5 Camels and Llamas	-	-	-	-	-
4 B 6 Horses	-	-	-	-	-
4 B 7 Mules and Asses	-	-	-	-	-
4 B 8 Swine	-	-	-	-	-
4 B 9 Poultry	-	-	-	-	-
4 B 13 Other	-	-	-	-	-
4 C RICE CULTIVATION	-	-	-	-	-
4 D AGRICULTURAL SOILS	-	-	-	-	-
4 D 1 Direct Soil Emission	-	-	-	-	-
4 F FIELD BURNING OF AGRICULTURAL WASTES	-	-	-	-	-
4 G OTHER (c)	-	-	-	-	-
5 B FOREST AND GRASSLAND CONVERSION	-	-	-	-	-
6 A SOLID WASTE DISPOSAL ON LAND	5,150	-	-	-	-
6 B WASTEWATER HANDLING	0,002	-	-	-	-
6 C WASTE INCINERATION (d)	17,700	-	-	-	-
6 D OTHER WASTE (e)	-	-	-	-	-
7 OTHER	10,250	-	-	-	-
National Total	77,644	2,894	3,872	1,329	2,127
Memo Items:					
International Aviation (LTO)	NO	0,000	0,000	0,000	0,000
International Aviation (Cruise)	NO	-	-	-	-
International Marine (b)	NO	0,004	0,017	0,008	0,029
5 E Other	NO	-	-	-	-
X (11 08 Volcanoes)	NO	NO	NO	NO	NO

Appendix 2A-2 NFR/SNAP source correspondence list

Table 2A-18 Correspondence list for NFR source categories 1A1, 1A2 and 1A4 and SNAP

SNAP_id	SNAP_name	NFR source
01	Combustion in energy and transformation industries	
0101	Public power	1A1a
010101	Combustion plants >= 300 MW (boilers)	1A1a
010102	Combustion plants >= 50 and < 300 MW (boilers)	1A1a
010103	Combustion plants < 50 MW (boilers)	1A1a
010104	Gas turbines	1A1a
010105	Stationary engines	1A1a
0102	District heating plants	1A1a
010201	Combustion plants >= 300 MW (boilers)	1A1a
010202	Combustion plants >= 50 and < 300 MW (boilers)	1A1a
010203	Combustion plants < 50 MW (boilers)	1A1a
010204	Gas turbines	1A1a
010205	Stationary engines	1A1a
0103	Petroleum refining plants	1A1b
010301	Combustion plants >= 300 MW (boilers)	1A1b
010302	Combustion plants >= 50 and < 300 MW (boilers)	1A1b
010303	Combustion plants < 50 MW (boilers)	1A1b
010304	Gas turbines	1A1b
010305	Stationary engines	1A1b
010306	Process furnaces	1A1b
0104	Solid fuel transformation plants	1A1c
010401	Combustion plants >= 300 MW (boilers)	1A1c
010402	Combustion plants >= 50 and < 300 MW (boilers)	1A1c
010403	Combustion plants < 50 MW (boilers)	1A1c
010404	Gas turbines	1A1c
010405	Stationary engines	1A1c
010406	Coke oven furnaces	1A1c
010407	Other (coal gasification, liquefaction, ...)	1A1c
0105	Coal mining, oil/gas extraction, pipeline compressors	
010501	Combustion plants >= 300 MW (boilers)	1A1c
010502	Combustion plants >= 50 and < 300 MW (boilers)	1A1c
010503	Combustion plants < 50 MW (boilers)	1A1c
010504	Gas turbines	1A1c
010505	Stationary engines	1A1c
02	Non-industrial combustion plants	
0201	Commercial and institutional plants (t)	1A4a
020101	Combustion plants >= 300 MW (boilers)	1A4a
020102	Combustion plants >= 50 and < 300 MW (boilers)	1A4a
020103	Combustion plants < 50 MW (boilers)	1A4a
020104	Stationary gas turbines	1A4a
020105	Stationary engines	1A4a
020106	Other stationary equipments (n)	1A4a
0202	Residential plants	1A4b
020201	Combustion plants >= 50 MW (boilers)	1A4b
020202	Combustion plants < 50 MW (boilers)	1A4b
020203	Gas turbines	1A4b
020204	Stationary engines	1A4b
020205	Other equipments (stoves, fireplaces, cooking,...)	1A4b
0203	Plants in agriculture, forestry and aquaculture	1A4c
020301	Combustion plants >= 50 MW (boilers)	1A4c
020302	Combustion plants < 50 MW (boilers)	1A4c
020303	Stationary gas turbines	1A4c
020304	Stationary engines	1A4c
020305	Other stationary equipments (n)	1A4c
03	Combustion in manufacturing industry	
0301	Comb. in boilers, gas turbines and stationary	1A2f
030101	Combustion plants >= 300 MW (boilers)	1A2f
030102	Combustion plants >= 50 and < 300 MW (boilers)	1A2f
030103	Combustion plants < 50 MW (boilers)	1A2f
030104	Gas turbines	1A2f
030105	Stationary engines	1A2f
030106	Other stationary equipments (n)	1A2f
0302	Process furnaces without contact	
030203	Blast furnace cowpers	1A2a
030204	Plaster furnaces	1A2f

030205	Other furnaces	1A2f
0303	Processes with contact	
030301	Sinter and pelletizing plants	1A2a
030302	Reheating furnaces steel and iron	1A2a
030303	Gray iron foundries	1A2a
030304	Primary lead production	1A2b
030305	Primary zinc production	1A2b
030306	Primary copper production	1A2b
030307	Secondary lead production	1A2b
030308	Secondary zinc production	1A2b
030309	Secondary copper production	1A2b
030310	Secondary aluminium production	1A2b
030311	Cement (f)	1A2f
030312	Lime (includ. iron and steel and paper pulp industr.)(f)	1A2f
030313	Asphalt concrete plants	1A2f
030314	Flat glass (f)	1A2f
030315	Container glass (f)	1A2f
030316	Glass wool (except binding) (f)	1A2f
030317	Other glass (f)	1A2f
030318	Mineral wool (except binding)	1A2f
030319	Bricks and tiles	1A2f
030320	Fine ceramic materials	1A2f
030321	Paper-mill industry (drying processes)	1A2d
030322	Alumina production	1A2b
030323	Magnesium production (dolomite treatment)	1A2b
030324	Nickel production (thermal process)	1A2b
030325	Enamel production	1A2f
030326	Other	1A2f
08 1)	Other mobile sources and machinery	
0804 1)	Maritime activities	
080403 1)	National fishing	1A4c
0806 1)	Agriculture	1A4c
0807 1)	Forestry	1A4c
0808 1)	Industry	1A2f
0809 1)	Household and gardening	1A4b

1) Not stationary combustion. Included in a NFR sector that also includes stationary combustion plants

Appendix 2A-3 Fuel rate

Table 2A-19 Fuel consumption rate of stationary combustion plants [GJ]

Fuel id	Fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
102	Coal	254836476	345917382	288115109	302081632	326290582	273898654	375387102	280010525	233354509	197985454	165920864	175451125	174639322
106	Brown coal briquettes	0	0	0	0	0	0	0	0	0	0	0	0	18922
107	Coke	0	0	0	0	0	0	0	0	0	0	0	0	1068454
110	Petroleum coke	4459475	4403578	4562877	5928457	3806509	4598627	6130172	6271959	5546731	7032313	7040383	8062464	8281655
111	Wood and simil.	18239133	20313133	21410173	22701233	23886440	23537165	25253215	25607369	22545580	23329536	25990200	28363689	32754200
114	Municipal waste	16384900	17727900	18829500	20469900	21468400	24152480	26146928	27925960	27322665	28522787	30265050	33037670	33972344
115	Industrial waste	0	0	0	0	0	0	33813	0	0	0	0	0	0
116	Wood waste	0	0	0	0	0	0	0	0	0	607044	0	0	0
117	Straw	13225200	14050200	14624200	14103200	12757200	13074202	13475808	13358144	13363126	14370434	13053790	13698057	15732839
118	Sewage sludge	0	0	0	0	0	0	0	0	0	0	40162	0	64508
203	Residual oil	32115775	37019669	37331722	32497828	49806706	37527011	41791443	30158107	30173567	22563263	18860843	19702838	24648453
204	Gas oil	61673820	65349403	55972785	62122851	53198037	53923308	57846146	51497273	48357982	48060167	41016114	43806222	39462159
206	Kerosene	5086000	943300	783700	771300	649600	580700	539700	436570	414294	255606	169963	286786	256128
215	Fish and rape oil	0	0	0	0	0	0	0	0	0	0	0	191475	127243
225	Orimulsion	0	0	0	0	0	19968824	36885721	40611318	32580001	34190630	34148181	30243687	23846400
301	Natural gas	76099387	86421571	90523947	103173352	117014079	135645220	160599207	169726176	180201988	187958727	183757321	193449631	193610189
303	LPG	2979387	2747776	2403579	2425299	2399108	2491400	2693594	2227826	2399970	2143219	1985058	1732002	1598822
308	Refinery gas	14169000	14537000	14865000	15405000	16390999	21005286	20271224	17091995	15224935	15724000	15219727	15534154	14792686
309	Biogas	751600	910100	898900	1076800	1409100	2055800	2244826	2714861	2662881	2640444	2980430	3046907	3331097
Total		500020152	610341012	550321492	582756852	629076761	612458677	769298899	667638083	614148228	585383624	540448085	566606707	568205421

Table 2A-20 Detailed fuel consumption data for stationary combustion plants [G]

NFR_id	fuel	fuel_gr_abbr	SNAP_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
1A1a	102	COAL	010101	219780959	303105248	252745120	269458670	294708124	241921428	346038108	254306486	210718948	176640613	146911420	158990462	161608383
1A1a	102	COAL	010102	10643051	15546752	12426136	10490330	10438182	11678411	8910896	8671430	8884368	8238010	6224846	4970502	4684578
1A1a	102	COAL	010103							1760100	-	-	33747	35480	24354	779
1A1a	102	COAL	0102	6017000	6635000	5173000	3581000	1661900	1213900	454200	-					
1A1a	102	COAL	010202											371	1494	363
1A1a	102	COAL	010203									9000	6562	3551	439	-
1A1a	110	PETROLEUM COKE	010102				1239200									
1A1a	111	WOOD AND SIMIL.	010101									263719	-		920	65930
1A1a	111	WOOD AND SIMIL.	010102			172000	515200	943000	643600	335925	453186	528441	705526	1090331	1181886	892421
1A1a	111	WOOD AND SIMIL.	010103							306000	332100	41468	327025	297612	341452	1049148
1A1a	111	WOOD AND SIMIL.	010104													117062
1A1a	111	WOOD AND SIMIL.	010105											428	60394	-
1A1a	111	WOOD AND SIMIL.	0102	3217000	3648000	4096000	3750500	3556400	3775100	4185900	4217100					
1A1a	111	WOOD AND SIMIL.	010202										193908	179937	249689	227284
1A1a	111	WOOD AND SIMIL.	010203									4699721	3911382	3882223	4300369	4451351
1A1a	111	WOOD AND SIMIL.	010205											53040	-	-
1A1a	114	MUNICIP. WASTES	010101									1288015	1278184	1230861	2809020	3502130
1A1a	114	MUNICIP. WASTES	010102		1300000	2005000	3990000	4904200	5881780	7152947	10831534	11023094	17039832	18305718	17902293	19002825
1A1a	114	MUNICIP. WASTES	010103							738400	-	3027000	5911296	8361289	8343163	7236828
1A1a	114	MUNICIP. WASTES	010104											416975	-	-
1A1a	114	MUNICIP. WASTES	010105											-	756908	-
1A1a	114	MUNICIP. WASTES	0102	15470800	15416500	15753900	15381300	15339500	13702100	11824900	10622800					
1A1a	114	MUNICIP. WASTES	010202						3254000	4612251	4649086	4617704				
1A1a	114	MUNICIP. WASTES	010203							582330	630840	6492514	2809156	1395589	2302823	2430354
1A1a	115	INDUSTR. WASTES	010202							33813						
1A1a	116	WOOD WASTES	010102										607044			
1A1a	117	STRAW	010101								740153	1013770	1339800	1119600	1587710	2643060
1A1a	117	STRAW	010102	479000	985000	1487000	1643200	1846200	2612602	1503708	1306291	1751935	2429408	1826796	1746030	1640945
1A1a	117	STRAW	010103							2176100	1715900	958000	1058701	640340	1905033	1890837
1A1a	117	STRAW	010104												101730	1215692
1A1a	117	STRAW	0102	4268000	4587000	4659000	4606000	3700000	3893600	3871000	3670800					
1A1a	117	STRAW	010202										141564	150510	97600	64873
1A1a	117	STRAW	010203									3889315	3639251	3290636	3418313	3435882
1A1a	203	RESIDUAL OIL	0101											17206	533	656
1A1a	203	RESIDUAL OIL	010101	7171573	10052580	8691120	8420050	22142392	10770398	15795457	7447256	11369048	6955499	4045724	5869702	5018057
1A1a	203	RESIDUAL OIL	010102	826465	390420	1778880	774628	306421	600920	382538	333923	353400	755210	513002	235650	232919
1A1a	203	RESIDUAL OIL	010103							453500	535000			82101	117384	75269
1A1a	203	RESIDUAL OIL	010104											14114	117319	6684079
1A1a	203	RESIDUAL OIL	0102	2046900	2326800	1286200	1059500	1802400	1970500	1852700	1681400					
1A1a	203	RESIDUAL OIL	010202							22250	66495	492445	135957	58729	86854	121947
1A1a	203	RESIDUAL OIL	010203									1097303	956510	650393	611104	453278
1A1a	204	GAS OIL	0101											6427	4864	2497
1A1a	204	GAS OIL	010101									112000	537423	135602	138238	92395
1A1a	204	GAS OIL	010102	300000	474940	698630	294270	286600	342600	16653	18113	13235	302722	278595	89748	107821
1A1a	204	GAS OIL	010103							486000	465100	15405	40495	-	66635	17133
1A1a	204	GAS OIL	010104		18060	22370	30730					148871	61852	91382	38714	75233
1A1a	204	GAS OIL	010105									130410	104311	74249	79770	64070
1A1a	204	GAS OIL	0102	1941000	813000	744000	947000	1034200	803700	1183200	999900					
1A1a	204	GAS OIL	010202							152994	73314	426455	257831	399458	826687	166763
1A1a	204	GAS OIL	010203									788287	296697	230214	354986	808046

1A1a	204	GAS OIL	010205														190	-	-
1A1a	215	RAPE & FISH OIL	010203															190810	126336
1A1a	225	ORIMULSION	010101					19913424	36885721	40611318	32580001	34190630	34148181	30243687	23846400				
1A1a	225	ORIMULSION	010102					55400											
1A1a	301	NATURAL GAS	0101														14558	11364	2
1A1a	301	NATURAL GAS	010101	4005028	4394781	3279455	4422200	6283990	10453816	12217008	10956960	20808855	21307826	23541558	20514966	19246614			
1A1a	301	NATURAL GAS	010102	115700	766090	3257796	6479498	7524400	6751996	1346036	5620044	10551198	2416632	1456749	4258088	2893865			
1A1a	301	NATURAL GAS	010103							11131660	11810929	691382	926574	680624	739539	654790			
1A1a	301	NATURAL GAS	010104	2107800	2107800	2107800	2614600	6012900	4839582	6245516	6875564	7759802	21656759	22973678	25003005	30027783			
1A1a	301	NATURAL GAS	010105	313500	814300	1639900	2401700	8490200	16758500	22539550	24339600	28976521	26619884	25826778	28098555	27998258			
1A1a	301	NATURAL GAS	0102	11033000	13655000	12350000	11420000	7488700	6618900	4207670	2592500	15753							
1A1a	301	NATURAL GAS	010202							381483	466411	539227	270693	217700	286968	291201			
1A1a	301	NATURAL GAS	010203									2999618	1889688	1416762	1762910	1482478			
1A1a	303	LPG	010102		1000	1000	3000		600										
1A1a	303	LPG	010103																
1A1a	303	LPG	0102	9000	13000	10000	-	2700	100										
1A1a	303	LPG	010203														246	-	-
1A1a	308	REFINERY GAS	010102			132300	221400		156700										
1A1a	308	REFINERY GAS	010103							35200	40100								
1A1a	308	REFINERY GAS	0102																
1A1a	309	BIOGAS	010102	235600	393800	359500	537400	639700	666100	94326	40561	50269	29597	25771	23338	20466			
1A1a	309	BIOGAS	010103							742600	1028200		103711	134968	123991	89445			
1A1a	309	BIOGAS	010105									1515688	1500477	1548734	1589322	1757220			
1A1a	309	BIOGAS	0102	57500	69800	131500	149500	159900	286900	272200	393300								
1A1a	309	BIOGAS	010203									194984		21733	11129	12650			
1A1b	203	RESIDUAL OIL	0103	1309200	2038100	3568700	3490200												
1A1b	203	RESIDUAL OIL	010303								1005700	32049	16612						
1A1b	203	RESIDUAL OIL	010306					3336717	2333787	2244019	616254	1073951	1073388	1322995	1442929	1362640			
1A1b	204	GAS OIL	0103		40000	44500	29100	49300	33300										
1A1b	204	GAS OIL	010303							21700	87000								
1A1b	301	NATURAL GAS	010304																
1A1b	303	LPG	0103			4600		8000	15000										
1A1b	303	LPG	010303							20700	18000								
1A1b	308	REFINERY GAS	0103	13978100	14411900	14630500	15075200												
1A1b	308	REFINERY GAS	010303							1340730	1866363	511593	1518794	1170793	1300559	995654			
1A1b	308	REFINERY GAS	010304					2386000	2289723	2524072	2361788	2484108	2654000	2400233	2457089	2455232			
1A1b	308	REFINERY GAS	010306					14004999	18548164	16336522	12771044	12202506	11551206	11648701	11776506	11341800			
1A1c	204	GAS OIL	010406									15603							
1A1c	204	GAS OIL	010505																150
1A1c	301	NATURAL GAS	010405																
1A1c	301	NATURAL GAS	010406									911835							
1A1c	301	NATURAL GAS	010502	8751400	8961800	10382600	10499400	11997600	12589447	14994291	19586715	21938219	23580170	25026374	24383156	26226872			
1A1c	301	NATURAL GAS	010504	376300	376900	376900	376900	349800	411700	338690	392000	126150	274178	164410	232982	246307			
1A1c	301	NATURAL GAS	010505	4900	9500	9500	9500	3500	12700	9080	8100	8790	13883	13250	11887	11470			
1A1c	309	BIOGAS	010405																
1A1c	309	BIOGAS	010502					6800	56500	64800	61900								
1A1c	309	BIOGAS	010505										29028	32507	28627	39855			
1A2f	102	COAL	0301	10023993	10334985	7832879	8789663	9412925	8446538	8041600	6908700	4469247	5126053	4849360	4465330	2316222			
1A2f	102	COAL	030102						1051344	1449890	1466575	1405667	1411682	1063375	997381	808823			
1A2f	102	COAL	030103									206631							
1A2f	102	COAL	030311	5018873	6048697	6577274	6602369	6913652	7224934	7067609	7209034	6627624	5638061	5708047	4718458	4348589			
1A2f	107	COKE OVEN COKE	0301													1065641			
1A2f	110	PETROLEUM COKE	0301	300246	-	56107	122868	-	98156	110000	33600	25858	38999	285426	127924	223785			
1A2f	110	PETROLEUM COKE	030311	2499252	2991306	3234048	3230652	3469025	3707398	4966161	5229890	4774684	6398880	6474743	7656733	7543476			

1A2f	111	WOOD AND SIMIL.	0301	5776000	5961000	6130000	6303000	7484200	6954700	7142500	7393900	4729903	3997800	3836511	4310038	7474992
1A2f	111	WOOD AND SIMIL.	030102									228152	1424571	1557075	1411227	2148172
1A2f	111	WOOD AND SIMIL.	030103									322116	413749	439542	428603	424290
1A2f	114	MUNICIP. WASTES	0301													
1A2f	114	MUNICIP. WASTES	030102									481				
1A2f	114	MUNICIP. WASTES	030311											505233	795492	1787613
1A2f	117	STRAW	030102									1496				
1A2f	117	STRAW	030105											386	91	
1A2f	118	SEWAGE SLUDGE	030311											40162		64508
1A2f	203	RESIDUAL OIL	0301	16487584	17678972	17238144	14022407	16716100	15349840	14900000	12921800	9365957	7921335	8241264	7292390	7435663
1A2f	203	RESIDUAL OIL	030102						201556	513500	418614	747697	770215	648553	306379	736719
1A2f	203	RESIDUAL OIL	030103									63565	128184	139691	89445	64340
1A2f	203	RESIDUAL OIL	030104										6787			
1A2f	203	RESIDUAL OIL	030105												22	10
1A2f	203	RESIDUAL OIL	030311	1762853	2152997	2366678	2397243	2618777	2840311	1771379	1863965	2538540	885967	858853	784	591804
1A2f	204	GAS OIL	0301	665870	1575591	1361528	1007507	525669	1594421	2155217	2092813	1730029	2537653	2212978	3188376	2618024
1A2f	204	GAS OIL	030102											3138	5071	222
1A2f	204	GAS OIL	030103									1965	64	82107	19	165
1A2f	204	GAS OIL	030104											51		897
1A2f	204	GAS OIL	030105											103	511	
1A2f	204	GAS OIL	030106	6098	-	8644	2762	9433	-	-	8178	15604	70265	8070	10000	7066
1A2f	206	KEROSENE	0301	69600	45700	38300	35500	30500	24500	30900	27800	13363	8909	7552	25543	2993
1A2f	215	RAPE & FISH OIL	030105													242
1A2f	301	NATURAL GAS	0301	23284500	24940500	25814500	27902100	33016700	33445300	32857200	34089100	34898549	32466636	28746747	32058619	31365984
1A2f	301	NATURAL GAS	030102						2661779	2464665	2971625	2961903	3100115	2690206	2869052	1190136
1A2f	301	NATURAL GAS	030103									542888	126872	116411	117965	14626
1A2f	301	NATURAL GAS	030104					150300	838200	2971200	3941400	2141369	6486855	6756339	6138931	6723657
1A2f	301	NATURAL GAS	030105	2600	2600	2600	2600	23500	224500	1144400	1251500	679952	1224637	1556394	1641970	1545295
1A2f	301	NATURAL GAS	030106	136059	-	37696	70154	53489	-	-	5228	31735	38608	50809	83000	25558
1A2f	303	LPG	0301	1482591	1561267	1410087	1238800	1311475	1465219	1616519	1256440	1267455	970603	621768	370289	287019
1A2f	303	LPG	030106												11000	
1A2f	308	REFINERY GAS	0301	190900	125100	102200	108400	-	10700	34700	52700	26728				
1A2f	309	BIOGAS	0301	10000	10000	10000	10000	32600	269700	210100	255100	83042	32727	54758	28077	36860
1A2f	309	BIOGAS	030102									4943	16116	15755	58579	70934
1A2f	309	BIOGAS	030103									2122				
1A2f	309	BIOGAS	030105									193	269	1487	23805	18344
1A4a	102	COAL	0201	88600	10700	95900	84100	91100	66700	41700	43400	2306				
1A4a	110	PETROLEUM COKE	0201	62000	104200	90200	96400	92000	70400	90500	97800	70544	50434	12070	12086	5355
1A4a	111	WOOD AND SIMIL.	0201	204500	204500	204500	204500	270200	334700	527200	555200	510825	540696	575926	632817	972070
1A4a	111	WOOD AND SIMIL.	020105												97	598
1A4a	114	MUNICIP. WASTES	0201	914100	1011400	1070600	1098600	1224700	1314600	1236100	1191700	873857	1476975	35615	115302	
1A4a	114	MUNICIP. WASTES	020103										7344	13770	12669	12594
1A4a	117	STRAW	0201										2057			
1A4a	203	RESIDUAL OIL	0201	1070600	865200	600300	516900	846600	780300	718800	729300	418154	485684	342842	203459	348147
1A4a	203	RESIDUAL OIL	020105										66			
1A4a	204	GAS OIL	0201	11794800	10622900	9062300	9007000	7158100	6579100	6704500	6184200	5496730	5788419	4957566	4736649	4031234
1A4a	204	GAS OIL	020103									3303	39101	71306	44010	43890
1A4a	204	GAS OIL	020105											859	673	488
1A4a	206	KEROSENE	0201	569100	209800	207000	188900	154600	124300	103300	96459	127964	117233	63008	79642	145428
1A4a	301	NATURAL GAS	0201	6357600	7223900	7348100	9497400	7098800	7807000	10221840	7523200	7272911	6653203	5854391	6431733	6679517
1A4a	301	NATURAL GAS	020103									55495	10802	43211	67208	49523
1A4a	301	NATURAL GAS	020104				16900	35800	44200	37300	21153	30736	23335	31001	42862	
1A4a	301	NATURAL GAS	020105	26200	55700	92400	110800	710800	770500	866640	1056400	342953	985737	967874	1048143	1098129
1A4a	303	LPG	0201	82800	77100	76500	122200	125200	131000	138000	128600	84733	110343	121621	119345	136552

1A4a	309	BIOGAS	0201	448500	436500	397900	379900	557700	751900	835600	913700	452365	366842	423606	396023	396057
1A4a	309	BIOGAS	020103									4557	71845	86680	84512	74286
1A4a	309	BIOGAS	020105									272454	433844	504895	501385	487668
1A4b	102	COAL	0202	746200	1290600	1008800	947100	757700	487800	169700	161700	127147	182354	45201	48680	15370
1A4b	106	BROWN COAL BRI.	0202													18922
1A4b	107	COKE OVEN COKE	0202													2813
1A4b	110	PETROLEUM COKE	0202	760877	697484	709922	739137	245484	483073	677611	588069	474591	454761	261990	262393	509008
1A4b	111	WOOD AND SIMIL.	0202	8954433	10412433	10720473	11859633	11564240	11760665	12668890	12569083	11134265	11615183	13847545	15248320	14760273
1A4b	117	STRAW	0202	5086900	5086900	5086900	4712400	4326600	3940800	3555000	3551500	3446584	3443104	3611833	2901450	2901450
1A4b	203	RESIDUAL OIL	0202	216900	218600	167700	129900	95200	62800	66300	45900	43266	50365	35611	26881	148870
1A4b	204	GAS OIL	0202	46463200	50638400	42913600	49967100	43678600	43287900	45295600	39595500	37849748	35675468	30275667	31506271	28997757
1A4b	206	KEROSENE	0202	4404800	659600	512000	520800	437800	410800	382600	287211	251843	118954	91190	159051	99599
1A4b	301	NATURAL GAS	0202	17362100	20432600	21436600	24900900	23928600	26141800	29457418	27737600	27650326	29396072	27562772	29557603	28080877
1A4b	301	NATURAL GAS	020202									14779	31289	55319	69007	30105
1A4b	301	NATURAL GAS	020204	-	-	3100	3100	1171200	1189400	1602560	1622500	1706977	1531350	1439173	1450266	1391882
1A4b	303	LPG	0202	1119162	825126	680245	929257	834898	758090	788512	725371	928931	987953	1179124	1185770	1144455
1A4b	309	BIOGAS	0202	-	-	-	-	-	-	-	-	10000				
1A4c	102	COAL	0203	2517800	2945400	2256000	2128400	2307000	1807600	1453300	1243200	903571	708372	1079213	1234026	856215
1A4c	110	PETROLEUM COKE	0203	837100	610588	472600	500200	-	239600	285900	322600	201054	89239	6154	3328	31
1A4c	111	WOOD AND SIMIL.	0203	87200	87200	87200	68400	68400	68400	86800	86800	86970	199696	230030	197877	170609
1A4c	117	STRAW	0203	3391300	3391300	3391300	3141600	2884400	2627200	2370000	2373500	2297722	2309253	2407889	1934300	1934300
1A4c	117	STRAW	020302									5800	5800	5800	5800	5800
1A4c	203	RESIDUAL OIL	0203	1223700	1296000	1634000	1687000	1942100	2616600	3071000	2492500	2578192	2407370	1782543	1644780	1368564
1A4c	203	RESIDUAL OIL	020302												2069	2170
1A4c	203	RESIDUAL OIL	020304												4017	4570
1A4c	204	GAS OIL	0203	502852	1166512	1117213	837382	456135	1282287	1830282	1973155	1610337	2347866	2183377	2712277	2423485
1A4c	204	GAS OIL	020304											4774	2723	4824
1A4c	206	KEROSENE	0203	42500	28200	26400	26100	26700	21100	22900	25100	21124	10510	8213	22550	8108
1A4c	215	RAPE & FISH OIL	020304												665	665
1A4c	301	NATURAL GAS	0203	2156400	2613800	2318700	2393800	2244200	2816600	3153760	3374200	2421915	3618456	3467279	3662566	3188151
1A4c	301	NATURAL GAS	020303							-	7760	34400	37904	77171	61906	59503
1A4c	301	NATURAL GAS	020304	66300	66300	66300	68700	448500	1277700	2396580	3432900	4093829	3223901	3032714	2859644	3039877
1A4c	303	LPG	0203	285834	270283	221147	132042	116835	121391	129863	99415	118851	74320	62299	45598	30796
1A4c	309	BIOGAS	0203					12400	24700	25200	22100	60000	14684	64084	69300	115430
1A4c	309	BIOGAS	020304									12264	41304	65452	108819	211882
TOTAL				500020152	610341012	550321492	582756852	629076761	612458677	769298899	667638083	614148228	585383624	540448085	566606707	568205421

Appendix 2A-4 Emission factors

Table 2A-21 SO₂, NO_x, NMVOC and CO emission factors and references 2002

Fuel	NFR sector	SNAP	SO ₂ Ref. [g/GJ]	NO _x Ref. [g/GJ]	NMVOC Ref. [g/GJ]	CO Ref. [g/GJ]
COAL	1A1a	010101, 010102, 010103	45 18	130 9	1,5 1	10 3
COAL	1A1a, 1A2f, 1A4b, 1A4c	010202, 010203, 0301, 0202, 0203	574 29	95 29	15 1	10 1
BROWN COAL BRI.	1A4b	0202	574 29	95 29	15 29	10 29
COKE OVEN COKE	1A2f, 1A4b	0301, 0202	574 29	95 29	15 29	10 29
PETROLEUM COKE	1A2f	0301	573 24	50 1	1,5 1	61 4
PETROLEUM COKE	1A4a, 1A4b, 1A4c	0201, 0202, 0203	573 24	50 1	1,5 1	1000 1
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	1,74 31	69 31	3,3 31	79 31
WOOD AND SIMIL.	1A1a	010105	25 22	130 22	48 1	50 3
WOOD AND SIMIL.	1A1a, 1A2f	010202, 010203, 010205, 0301, 030102, 030103	25 22	130 22	48 1	240 4
WOOD AND SIMIL.	1A4a, 1A4c	0201, 020105, 0203	25 22	130 22	600 1	240 4
WOOD AND SIMIL.	1A4b	0202	25 22	120 22	600 1	9000 12, 13
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	23,9 31	124 31	0,98 31	7,4 31
MUNICIP. WASTES	1A1a, 1A2f, 1A4a	010203, 030102, 0201, 020103	67 9	164 9	9 1	10 9
STRAW	1A1a	010102, 010103	47,1 31	131 31	0,8 31	63 31
STRAW	1A1a, 1A2f	010202, 010203, 030102, 030105	130 5	153 4, 28	50 1	325 4, 5
STRAW	1A4a, 1A4c	0201, 0203, 020302	130 5	153 4, 28	600 1	325 4, 5
STRAW	1A4b	0202	130 5	153 4, 28	600 1	4000 1, 6, 7
RESIDUAL OIL	1A1a	0101, 010101, 010102, 010103, 010104	290 9	130 28	3 1	15 3
RESIDUAL OIL	1A1a, 1A4b, 1A4c	010202, 010203, 0201, 0202, 0203, 020302	344 25	142 4	3 1	30 1
RESIDUAL OIL	1A1b	010303	649 9	142 4	3 1	30 1
RESIDUAL OIL	1A2f	0301, 030102, 030103	344 25	130 28	3 1	30 1
RESIDUAL OIL	1A2f	030104	344 25	130 28	3 1	15 1
RESIDUAL OIL	1A2f	030105	344 25	130 28	3 1	100 1
RESIDUAL OIL	1A4a, 1A4c	020105, 020304	344 25	142 4	3 1	100 1
GAS OIL	1A1a	0101, 010101, 010102, 010103	23 27	220 9	1,5 1	15 3
GAS OIL	1A1a, 1A2f	Gas turbines: 010104, 030104	23 27	350 9	2 1	15 3
GAS OIL	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Engines: 010105, 010205, 010505, 030105, 020105, 020304	23 27	700 -	100 1	100 1
GAS OIL	1A1a, 1A2f	010202, 0301, 030102	23 27	65 28	1,5 1	30 1
GAS OIL	1A1a, 1A2f	010203, 030103, 030106	23 27	52 4	1,5 1	30 1
GAS OIL	1A4a, 1A4c	0201, 020103, 0203	23 27	52 4	3 1	30 1
GAS OIL	1A4b	0202	23 27	52 4	3 1	43 1
KEROSENE	all	all	5 30	50 1	3 1	20 1
FISH & RAPE OIL	1A1a	010203	100 15	153 15	50 15	325 15
FISH & RAPE OIL	1A2f	030105	130 15	153 15	50 15	325 15
FISH & RAPE OIL	1A4c	020304	100 15	153 15	600 15	325 15
ORIMULSION	1A1a	010101	12 9	86 9	3 16	15 16
NATURAL GAS	1A1a	0101, 010101, 010102, 010103	0,3 17	115 9	2 14	15 3
NATURAL GAS	1A1a, 1A1b, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010304, 010504, 030104, 020104, 020303	0,3 17	124 31	1,4 31	6,2 31
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020204, 020304	0,3 17	168 31	117 31	175 31
NATURAL GAS	1A1a, 1A2f	010202, 010203, 0301, 030103, 030106	0,3 17	50 4	2 14	28 4
NATURAL GAS	1A1c	010502	0,3 17	250 32	2 14	28 4
NATURAL GAS	1A4a, 1A4c	0201, 020103, 0203	0,3 17	30 4	2 14	28 4
NATURAL GAS	1A4b	0202, 020202	0,3 17	30 4	4 11	20 11
LPG	1A1a, 1A2f	010203, 0301, 030106	0,13 -	96 32	2 1	25 1
LPG	1A4a, 1A4c	0201, 0203	0,13 -	71 -	2 1	25 1
LPG	1A4b	0202	0,13 -	47 32	2 1	25 1
REFINERY GAS	1A1b	010303	0,3 23	100 1	4 1	15 1
REFINERY GAS	1A1b	010304	0,3 23	170 9	4 1	15 1
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	010102, 010103, 010203, 0301, 0201, 020103, 0203	11 26	31 4	4 1	36 4
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020304	19,2 31	540 31	14 31	273 31
BIOGAS	1A2f	030102	11 26	66	4 1	36 4

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Time series for emission factors for SO₂, NO_x, NMVOC and CO that are not the same in 1990-2002 are shown below. All other factors are constant in 1990-2002.

Table 2A-22 SO₂, NO_x, NMVOC and CO emission factors time series

pollutant	fuel	fuel_gr_abbr	NFR	SNAP	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
SO ₂	102	COAL	1A1a	010101, 010102, 010103	506	571	454	386	343	312	420	215	263	193	64	47	45
SO ₂	110	PETROLEUM COKE	1A2f, 1A4a, 1A4b, 1A4c	0301, 0201, 0202, 0203	745	745	745	745	745	745	745	745	745	745	745	573	573
SO ₂	114	MUNICIP. WASTES	1A1a	010102, 010103		116	95	73	52	30				25	23,9	23,9	23,9
SO ₂	114	MUNICIP. WASTES	1A1a, 1A2f, 1A4a	0102, 010203, 030102, 0201, 020103	138	131	124	117	110	103	95	88	81	74	67	67	67
SO ₂	203	RESIDUAL OIL	1A1a	0101											403	315	290
SO ₂	203	RESIDUAL OIL	1A1a	010101										369	403	315	290
SO ₂	203	RESIDUAL OIL	1A1a	010102	446	470	490	475	1564	351				369	403	315	290
SO ₂	203	RESIDUAL OIL	1A1a	010103							408	344			403	315	290
SO ₂	203	RESIDUAL OIL	1A1a	010104											403	315	290
SO ₂	203	RESIDUAL OIL	1A1a	0102	495	495	495	495	495	495	495	495	344				
SO ₂	203	RESIDUAL OIL	1A1b	0103	5869	3021	2048	2155		495							
SO ₂	203	RESIDUAL OIL	1A2f, 1A4a, 1A4b, 1A4c	0301, 0201, 0202, 0203	495	495	495	495	495	495	495	495	344	344	344	344	344
SO ₂	204	GAS OIL	all	all	94	94	94	94	94	23	23	23	23	23	23	23	23
SO ₂	225	ORIMULSION	1A1a	010101							147	149				10	12
NO _x	102	COAL	1A1a	010101	342	384	294	289	267	239	250	200	177	152	129	122	130
NO _x	102	COAL	1A1a	010102	342	384	294	289	267	239	250	200	177	152	129	122	130
NO _x	102	COAL	1A1a	010103							200	200	177	152	129	122	130
NO _x	102	COAL	1A1a	010203									200	200	95	95	95

NO _x	102	COAL	1A2f	0301	200	200	200	200	200	200	200	200	200	200	95	95	95	
NO _x	102	COAL	1A4b	0202	200	200	200	200	200	200	200	200	200	200	95	95	95	
NO _x	102	COAL	1A4c	0203	200	200	200	200	200	200	200	200	200	200	95	95	95	
NO _x	203	RESIDUAL OIL	1A1a	0101											129	122	130	
NO _x	203	RESIDUAL OIL	1A1a	010101											152	129	122	130
NO _x	203	RESIDUAL OIL	1A1a	010102	342	384	294	289	267	239					152	129	122	130
NO _x	203	RESIDUAL OIL	1A1a	010103							250	200				129	122	130
NO _x	203	RESIDUAL OIL	1A1a	010104												129	122	130
NO _x	204	GAS OIL	1A1a	0102	100	95	90	85	52	52	52	52						
NO _x	204	GAS OIL	1A1b	0103		95	90	85	80	75								
NO _x	204	GAS OIL	1A2f	0301	100	95	90	85	52	52	70	65	65	65	65	65	65	65
NO _x	225	ORIMULSION	1A1a	010101							139	138				88	86	
NO _x	301	NATURAL GAS	1A1a	010104	161	157	153	149	145	141		134	131	127	124	124	124	124
NO _x	301	NATURAL GAS	1A1a	010105	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NO _x	301	NATURAL GAS	1A1c	010504	161	157	153	149	145	141	138	134	131	127	124	124	124	124
NO _x	301	NATURAL GAS	1A1c	010505	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NO _x	301	NATURAL GAS	1A2f	030104	161				145	141	138	134	131	127	124	124	124	124
NO _x	301	NATURAL GAS	1A2f	030105	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NO _x	301	NATURAL GAS	1A4a	020104		157			145	141	138	134	131	127	124	124	124	124
NO _x	301	NATURAL GAS	1A4a	020105	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NO _x	301	NATURAL GAS	1A4b	020204	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NO _x	301	NATURAL GAS	1A4c	020303							141	138	134	131	127	124	124	124
NO _x	301	NATURAL GAS	1A4c	020304	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NO _x	309	BIOGAS	1A1a	010105										578	559	540	540	540
NO _x	309	BIOGAS	1A1c	010505											559	540	540	540
NO _x	309	BIOGAS	1A2f	030105										578	559	540	540	540
NO _x	309	BIOGAS	1A4a	020105										578	559	540	540	540
NO _x	309	BIOGAS	1A4c	020304										578	559	540	540	540
NMVO	301	NATURAL GAS	1A1a	010105	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVO	301	NATURAL GAS	1A1c	010505	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVO	301	NATURAL GAS	1A2f	030105	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVO	301	NATURAL GAS	1A4a	020105	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVO	301	NATURAL GAS	1A4b	020204	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVO	301	NATURAL GAS	1A4c	020304	58	67	78	122	136	137	134	120	118	118	117	117	117	117
CO	111	WOOD AND SIMIL.	1A1a	0102	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	111	WOOD AND SIMIL.	1A2f	0301	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	111	WOOD AND SIMIL.	1A4a	0201	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	111	WOOD AND SIMIL.	1A4c	0203	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	114	MUNICIP. WASTES	1A1a	010102		85	70	55	40	25					10	7,4	7,4	7,4
CO	114	MUNICIP. WASTES	1A1a	010103							10	10	10	10	10	7,4	7,4	7,4
CO	114	MUNICIP. WASTES	1A1a	0102	100	85	70	55	40	25	10	10						
CO	114	MUNICIP. WASTES	1A4a	0201	100	85	70	55	40	25	10	10	10	10	10	10	10	10
CO	117	STRAW	1A1a	0102	600	554	508	463	417	371	325	325						
CO	117	STRAW	1A4b	0202	8500	8500	8500	8500	8500	7500	6500	5500	4500	4000	4000	4000	4000	4000
CO	117	STRAW	1A4c	0203	600	554	508	463	417	371	325	325	325	325	325	325	325	325
CO	301	NATURAL GAS	1A1a	010105	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	301	NATURAL GAS	1A1c	010505	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	301	NATURAL GAS	1A2f	030105	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	301	NATURAL GAS	1A4a	020105	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	301	NATURAL GAS	1A4b	020204	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	301	NATURAL GAS	1A4c	020304	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	309	BIOGAS	1A1a	010105										265	269	273	273	273
CO	309	BIOGAS	1A1c	010505											269	273	273	273
CO	309	BIOGAS	1A2f	030105										265	269	273	273	273
CO	309	BIOGAS	1A4a	020105										265	269	273	273	273
CO	309	BIOGAS	1A4c	020304										265	269	273	273	273

Table 2A-23 PM emission factors and references 2002

Fuel	NFR sector	SNAP	TSP Reference [g/GJ]	PM ₁₀ Reference [g/GJ]	PM _{2.5} Reference [g/GJ]
STRAW	1A1a	010102, 010103	3,97	0,133	0,102
STRAW	1A1a, 1A2f, 1A4a, 1A4c	010202, 010203, 030102, 030105, 0201, 0203, 020302	21	15	12
STRAW	1A4b	0202	234	222	211
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020304	2,63	0,451	0,206
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	010102, 010103, 010203, 0301, 030102, 0201, 020103, 0203	1,5	1,5	1,5
FISH & RAPE OIL	1A1a, 1A4c	010203, 020304	19	19	19
FISH & RAPE OIL	1A2f	030105	21	15	12
BROWN COAL BRI.	all	all	17	12	7
COKE OV.COKE	all	all	17	12	7
GAS OIL	all	all	5	5	5
KEROSENE	all	all	5	5	5
LPG	all	all	0,2	0,2	0,2
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	2,02	1,126	1,084
MUNICIP. WASTES	1A1a, 1A2f	010203, 030102	6	5	4
MUNICIP. WASTES	1A4a	0201, 020103	100	95	90
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	0101, 010101, 010102, 010103, 010202, 010203, 010502, 0301, 030103, 030106, 0201, 020103, 0202, 020202, 0203	0,1	0,1	0,1
NATURAL GAS	1A1a, 1A1b, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010304, 010504, 030104, 020104, 020303	0,1	0,061	0,051
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020204, 020304	0,76	0,189	0,161
ORIMULSION	1A1a	010101	1,9	1,8	1,6
PETROLEUM COKE	1A2f	0301	10	7	3
PETROLEUM COKE	1A4a, 1A4b, 1A4c	0201, 0202, 0203	100	60	30
REFINERY GAS	all	all	5	5	5
RESIDUAL OIL	1A1a	0101, 010101, 010102, 010103, 010104, 010202, 010203	3	3	2,5
RESIDUAL OIL	1A1b	010303	50	40	35
RESIDUAL OIL	1A2f, 1A4a	0301, 030102, 030103, 030104, 030105, 0201	14	10,5	7
RESIDUAL OIL	1A4a, 1A4c	Engines: 020105, 020304	60	50	40
RESIDUAL OIL	1A4b, 1A4c	0202, 0203, 020302	14	10,5	7
COAL	1A1a	010101, 010102, 010103	3	2,6	2,1
COAL	1A1a	010202, 010203	6	6	5
COAL	1A2f, 1A4b, 1A4c	0301, 0202, 0203	17	12	7
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	7,9	1,94	1,23
WOOD AND SIMIL.	1A1a, 1A2f	010105, 010202, 010202, 010203, 010205, 0301, 030102, 030103	19	13	10
WOOD AND SIMIL.	1A4a, 1A4c	0201, 020105, 0203	143	143	135
WOOD AND SIMIL.	1A4b	0202	150	143	135

- Danish legislation, Miljøstyrelsen 2001. Luftvejledning, Begrænsning af luftforurening fra virksomheder, Vejledning fra Miljøstyrelsen nr 2 2001
- Particulate size distribution for wood combustion in power plants refers to the TNO CEPMEIP emission factor database 2001. Available on the internet at: <http://www.air.sk/tno/cepmeip/>
- Nielsen, M. & Illerup, J.B: 2003. Emissionsfaktorer og emissionsopgørelse for decentral kraftvarme. Eltra PSO projekt 3141. Kortlægning af emissioner fra decentrale kraftvarmeværker. Delrapport 6. Danmarks Miljøundersøgelser. 116 s. –Faglig rapport fra DMU nr. 442.(In Danish, with an english summary). Available on the Internet at :http://www.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR442.pdf
- German, L., 2002. The Danish Technological Institute, Personal communication, rough estimate
- Particulate size distribution for wood combustion in residential plants refers to the TNO CEPMEIP emission factor database 2001. Available on the internet at: <http://www.air.sk/tno/cepmeip/>
- Danish legislation. Miljøstyrelsen 1990, Bekendtgørelse 689, 15/10/1990, Bekendtgørelse om begrænsning af emissioner af svovldioxid, kvælstofoxider og støv fra store fyringsanlæg. (and Bekendtgørelse 518/1995)
- All TSP emission is assumed to be <2,5µm (NERI assumption)
- Same emission factor as for straw is assumed (NERI assumption)
- The TNO CEPMEIP emission factor database 2001. Available on the internet at: <http://www.air.sk/tno/cepmeip/>
- Implied emission factor calculation based on annual environmental reports of a large number of municipal waste incineration plants, 2000
- Particulate size distribution is unknown. The PM₁₀ fraction is assumed to equal 85% of TSP and the PM_{2.5} fraction is assumed to equal 70% of TSP (NERI assumption)
- Libjerg, H. Thellefsen, M. Sander, B. Simonsen, P., Lund, C., Poulsen, K.& Fogh, C:L., 2001. Feltstudier af Forbrændingsaerosoler, EFP -98 Projekt, Aerosollaboratoriet DTU, FLS Miljø, Forskningscenter Risø, Elsam, Energi E2 (in Danish)
- Particulate size distribution for residual oil combustion refers to the TNO CEPMEIP emission factor database 2001. Available on the internet at: <http://www.air.sk/tno/cepmeip/>
- Particulate size distribution for coal combustion refers to the TNO CEPMEIP emission factor database 2001. Available on the internet at: <http://www.air.sk/tno/cepmeip/>
- Error. Assuming same emission factors as for straw the emission factors should have been TSP: 21g/GJ, PM₁₀: 15 g/GJ and PM_{2.5}: 12 g/GJ. The error is negligible.
- Same emission factor as for coal is assumed (NERI assumption)

The same PM emission factors are applied for 2000-2002.

Table 2A-24 HM emission factors and references 2002

Fuel	NFR sec- tor	SNAP	As [mg/ GJ]	Refer- ence	Cd [mg/ GJ]	Refer- ence	Cr [mg/ GJ]	Refer- ence	Cu [mg/ GJ]	Refer- ence	Hg [mg/ GJ]	Refer- ence	Ni [mg/ GJ]	Refer- ence	Pb [mg/ GJ]	Refer- ence	Se [mg/ GJ]	Refer- ence	Zn [mg/ GJ]	Refer- ence
BROWN COAL BRI.	1A4b	0202	3,2	1	0,1	1	2,3	1	3,1	1	1,7	1	4,4	1	6	1	0,5	1	10,5	1
COAL	all	all	3,2	1	0,1	1	2,3	1	3,1	1	1,7	1	4,4	1	6	1	0,5	1	10,5	1
COKE OV.COKE	all	all	3,2	1	0,1	1	2,3	1	3,1	1	1,7	1	4,4	1	6	1	0,5	1	10,5	1
FISH & RAPE OIL	all	all			0,62	1	0,62	1	1,06	1	6,8	1	0,53	1	3,22	1			8,39	1
GAS OIL	all	all	1,17	1	0,23	1	0,94	1	1,17	1	1,17	1	0,64	1	2,34	1	4,68	1	11,7	1
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	6,74	2	4,73	2	2,43	2	10,03	2	7,39	2	4,71	2	123	2			359,5	1
MUNICIP. WASTES	1A1a 1A2f 1A4a	010203, 030102, 0201, 020103	3,53	1	9,21	1	32,97	1	31,8	1	58,7	1	55,4	1	137,5 7	1			359,5	1
ORIMULSION	1A1a	010101	14,07	1	13,5	1	33,33	1	12,96	1	4,3	1	642	1	23,46	1	12,3	1	2,72	1
PETROLEUM COKE	all	all	3,2	1	0,1	1	2,3	1	3,1	1	1,7	1	4,4	1	6	1	0,5	1	10,5	1
RESIDUAL OIL	all	all	14,07	1	13,5	1	33,33	1	12,96	1	4,3	1	642	1	23,46	1	12,3	1	2,72	1
STRAW	1A1a	010102, 010103	2	2	0,72	2	1,52	2	1,66	2	0,53	2	1,62	2	6,12	2			8,39	1
STRAW	1A1a, 1A2f, 1A4a, 1A4b, 1A4c	010202, 010203, 030102, 030105, 0201, 0202, 0203, 020302			0,62	1	0,62	1	1,06	1	6,8	1	0,53	1	3,22	1			8,39	1
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	2,34	2	0,9	2	2,34	2	2,6	2	0,72	2	2,34	2	3,62	2			136	1
WOOD AND SIMIL.	1A1a 1A2f 1A4a 1A4b 1A4c	010105 010202 010203 010205 0301 030102 030103 0201 020105 0202 0203			6,8	1			6,8	1	6,8	1			3,4	1			136	1

1. Illerup, J.B., Geertinger, A., Hoffmann, L. & Christiansen, K., 1999: Emissionsfaktorer for tungmetaller 1990-1996. Danmarks Miljøundersøgelser. 66 s. – Faglig rapport fra DMU nr. 301. (In Danish) Available on the internet at: http://www.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/fr301.pdf
2. Nielsen, M. & Illerup, J.B: 2003. Emissionsfaktorer og emissionsopgørelse for decentral kraftvarme. Eltra PSO projekt 3141. Kortlægning af emissioner fra decentrale kraftvarmeværker. Delrapport 6. Danmarks Miljøundersøgelser. 116 s. –Faglig rapport fra DMU nr. 442.(In Danish, with an english summary). Available on the Internet at :http://www.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR442.pdf

For large power plants combusting coal or residual oil other emission factors are applied for point sources than for area sources. The emission inventories are however mainly based on plants specific emission data from each plant. The large point source emission factors that differ from the area source emission factors are shown below.

Table 2A-25 HM emission factors [mg/GJ] 2002 for large point sources. Only emission factors that differ from the area source emission factors are included

Fuel	SNAP	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
Coal	010102	3,3	-	8,02	4,41	2,2	6,81	-	13	-
Residual oil	010101, 010102	1,48	4,43	1,33	1,48	0,15	191	1,48	0,59	11,7

Time series for emission factors for heavy metals that are not the same in 1990-2002 are shown below. All other factors are constant in 1990-2002.

Table 2A-26 HM emission factors time series [mg/GJ]

Pol-lutant	Fuel	NFR sector	SNAP	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
M01	MUNICIP. WASTES	1A1a	010102		7,207	6,594	5,981	5,369	4,756				3,53	6,74	6,74	6,74
M01	MUNICIP. WASTES	1A1a	010103							4,143	3,53	3,53	3,53	6,74	6,74	6,74
M01	MUNICIP. WASTES	1A1a	0102	7,82	7,207	6,594	5,981	5,369	4,756	4,143	3,53					
M01	MUNICIP. WASTES	1A4a	0201	7,82	7,207	6,594	5,981	5,369	4,756	4,143	3,53	3,53	3,53	3,53	3,53	3,53
M01	RESIDUAL OIL	1A1b	010303								14,07	17,07	17,07	14,07	14,07	14,07
M02	PETROLEUM COKE	1A2f	0301	0,2	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
M02	MUNICIP. WASTES	1A1a	010102		28,161	25,003	21,844	18,686	15,527				9,21	4,73	4,73	4,73
M02	MUNICIP. WASTES	1A1a	010103							12,369	9,21	9,21	9,21	4,73	4,73	4,73
M02	MUNICIP. WASTES	1A1a	0102	31,32	28,161	25,003	21,844	18,686	15,527	12,369	9,21					
M02	MUNICIP. WASTES	1A4a	0201	31,32	28,161	25,003	21,844	18,686	15,527	12,369	9,21	9,21	9,21	9,21	9,21	9,21
M03	MUNICIP. WASTES	1A1a	010102		164,224	142,349	120,473	98,597	76,721				32,97	2,43	2,43	2,43
M03	MUNICIP. WASTES	1A1a	010103							54,846	32,97	32,97	32,97	2,43	2,43	2,43
M03	MUNICIP. WASTES	1A1a	0102	186,1	164,224	142,349	120,473	98,597	76,721	54,846	32,97					
M03	MUNICIP. WASTES	1A4a	0201	186,1	164,224	142,349	120,473	98,597	76,721	54,846	32,97	32,97	32,97	32,97	32,97	32,97
M04	MUNICIP. WASTES	1A1a	010102		110,391	97,293	84,194	71,096	57,997				31,8	10,03	10,03	10,03
M04	MUNICIP. WASTES	1A1a	010103							44,899	31,8	31,8	31,8	10,03	10,03	10,03
M04	MUNICIP. WASTES	1A1a	0102	123,49	110,391	97,293	84,194	71,096	57,997	44,899	31,8					
M04	MUNICIP. WASTES	1A4a	0201	123,49	110,391	97,293	84,194	71,096	57,997	44,899	31,8	31,8	31,8	31,8	31,8	31,8
M05	MUNICIP. WASTES	1A1a	010102		121,889	111,357	100,826	90,294	79,763				58,7	7,39	7,39	7,39
M05	MUNICIP. WASTES	1A1a	010103							69,231	58,7	58,7	58,7	7,39	7,39	7,39
M05	MUNICIP. WASTES	1A1a	0102	132,42	121,889	111,357	100,826	90,294	79,763	69,231	58,7					
M05	MUNICIP. WASTES	1A4a	0201	132,42	121,889	111,357	100,826	90,294	79,763	69,231	58,7	58,7	58,7	58,7	58,7	58,7
M06	MUNICIP. WASTES	1A1a	010102		172,451	152,943	133,434	113,926	94,417				55,4	4,71	4,71	4,71
M06	MUNICIP. WASTES	1A1a	010103							74,909	55,4	55,4	55,4	4,71	4,71	4,71
M06	MUNICIP. WASTES	1A1a	0102	191,96	172,451	152,943	133,434	113,926	94,417	74,909	55,4					
M06	MUNICIP. WASTES	1A4a	0201	191,96	172,451	152,943	133,434	113,926	94,417	74,909	55,4	55,4	55,4	55,4	55,4	55,4
M07	MUNICIP. WASTES	1A1a	010102		639,024	555,449	471,873	388,297	304,721				137,57	123	123	123
M07	MUNICIP. WASTES	1A1a	010103							221,146	137,57	137,57	137,57	123	123	123
M07	MUNICIP. WASTES	1A1a	0102	722,6	639,024	555,449	471,873	388,297	304,721	221,146	137,57					
M07	MUNICIP. WASTES	1A4a	0201	722,6	639,024	555,449	471,873	388,297	304,721	221,146	137,57	137,57	137,57	137,57	137,57	137,57
M09	MUNICIP. WASTES	1A1a	010102		741,254	677,629	614,003	550,377	486,751				359,5	359,5	359,5	359,5
M09	MUNICIP. WASTES	1A1a	010103							423,126	359,5	359,5	359,5	359,5	359,5	359,5
M09	MUNICIP. WASTES	1A1a	0102	804,88	741,254	677,629	614,003	550,377	486,751	423,126	359,5					
M09	MUNICIP. WASTES	1A4a	0201	804,88	741,254	677,629	614,003	550,377	486,751	423,126	359,5	359,5	359,5	359,5	359,5	359,5

Table 2A-27 PAH emission factors 2002 (c)

Fuel	NFR id	SNAP	Benzo(a)-pyrene [µg/GJ] Reference	Benzo(b)-fluoranthene [µg/GJ] Reference	Benzo(k)-fluoranthene [µg/GJ] Reference	Indeno(1,2,3-c,d)-pyrene [µg/GJ] Reference
BIOGAS	all	all	1 8	1 8	0,4 8	1,1 8
BROWN COAL BRI.	1A4b	0202	59524 4 (9)	63492 4 (9)	1984 4 (9)	119048 4 (9)
COAL	1A1a	010101, 010102, 010103, 010202, 010203	0,14 4	0,29 4	0,29 4	0,28 4
COAL	1A2f	0301	23 4	929 4	929 4	698 4
COAL	1A4b, 1A4c	0202, 0203	59524 4	63492 4	1984 4	119048 4
COKE OV.COKE	1A2f	0301	23 4 (9)	929 4 (9)	929 4 (9)	698 4 (9)
COKE OV.COKE	1A4b	0202	59524 4 (9)	63492 4 (9)	1984 4 (9)	119048 4 (9)
FISH & RAPE OIL	all	all	1529 2 (3)	3452 2 (3)	1400 2 (3)	1029 2 (3)
GAS OIL	1A1a, 1A1c	0101, 010101, 010102, 010103, 010104, 010105, 010202, 010203, 010205, 010505	109,6 4	475,41 4	93,21 4	177,28 4
GAS OIL	1A2f, 1A4a, 1A4b, 1A4c	0301, 030102, 030103, 030104, 030105, 030106, 0201, 020103, 020105, 0202, 0203, 020304	80 4	42 4	66 4	160 4
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	0,8 8	1,7 8	0,8 8	0,9 8
MUNICIP. WASTES	1A1a, 1A2f, 1A4a	010203, 030102, 0201, 020103	67 5	571 5	1 5	1 5
NATURAL GAS	1A1a, 1A1b, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010304, 010504, 030104, 020104, 020303	1 8	1 8	2 8	3 8
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010405, 010505, 030105, 020105, 020204, 020304	3 8	42 8	24 8	6 8
NATURAL GAS	1A4b	020202	0,133 6	0,663 6	0,265 6	2,653 6
ORIMULSION	1A1a	010101	109,6 4 (7)	475,41 4 (7)	93,21 4 (7)	177,28 4 (7)
PETROLEUM COKE	all	all	3184 5	9554 5		

RESIDUAL OIL	1A1a, 1A1b	0101, 010101, 010102, 010103, 010104, 010202, 010203, 010303	109,6	4	475,41	4	93,21	4	177,28	4
RESIDUAL OIL	1A2f, 1A4a, 1A4b, 1A4c	0301, 030102, 030103, 030104, 030105, 0201, 020105, 0202, 0203, 020302, 020304	80	4	42	4	66	4	160	4
STRAW	1A1a	010102	1,6	1	1,4	1	1	1	1,6	1
STRAW	1A1a	010103	21	8	157	8	90	8	23	8
STRAW	1A1a, 1A2f	010202, 010203, 030102, 030105	1529	2	3452	2	1400	2	1029	2
STRAW	1A4a, 1A4b, 1A4c	0201, 0202, 0203, 020302	12956	2	12828	2	6912	2	4222	2
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	3	8	2	8	2	8	2	8
WOOD AND SIMIL.	1A1a, 1A2f	010105, 010202, 010203, 010205, 0301, 030102, 030103	6,46	4	1292,52	4	1292,52	4	11,56	4
WOOD AND SIMIL.	1A4a, 1A4b, 1A4c	0201, 020105, 0202, 0203	168707	4	221769	4	73469	4	119728	4

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9. Same emission factor as for coal is assumed (NERI assumption)

The same PAH emission factors are applied for 1990-2002.

Appendix 2A-5 Large point sources

Table 2A-28 Large point sources, fuel consumption in 2002 (1A1, 1A2 and 1A4)

lps_id	lps name	part_id	SNAP_id	fuel_id	fuel	fuel consumption [GJ]	NFR source
001	Amagervaerket	01	010101	102	COAL	2064946	1A1a
001	Amagervaerket	01	010101	203	RESIDUAL OIL	184904	1A1a
001	Amagervaerket	02	010101	102	COAL	3290774	1A1a
001	Amagervaerket	02	010101	203	RESIDUAL OIL	214191	1A1a
001	Amagervaerket	03	010101	102	COAL	13750850	1A1a
001	Amagervaerket	03	010101	203	RESIDUAL OIL	86228	1A1a
002	Svanemoellevaerket	05	010101	204	GAS OIL	720	1A1a
002	Svanemoellevaerket	05	010101	301	NATURAL GAS	1679600	1A1a
002	Svanemoellevaerket	07	010104	204	GAS OIL	42	1A1a
002	Svanemoellevaerket	07	010104	301	NATURAL GAS	3787960	1A1a
003	H.C.Oerstedsvaerket	03	010101	203	RESIDUAL OIL	438313	1A1a
003	H.C.Oerstedsvaerket	03	010101	301	NATURAL GAS	1928414	1A1a
003	H.C.Oerstedsvaerket	07	010101	203	RESIDUAL OIL	584175	1A1a
003	H.C.Oerstedsvaerket	07	010101	301	NATURAL GAS	2737670	1A1a
004	Kyndbyvaerket	21	010101	203	RESIDUAL OIL	198245	1A1a
004	Kyndbyvaerket	22	010101	203	RESIDUAL OIL	296933	1A1a
004	Kyndbyvaerket	26	010101	203	RESIDUAL OIL	215426	1A1a
004	Kyndbyvaerket	28	010101	203	RESIDUAL OIL	57826	1A1a
004	Kyndbyvaerket	41	010105	204	GAS OIL	1432	1A1a
004	Kyndbyvaerket	51	010104	204	GAS OIL	14126	1A1a
004	Kyndbyvaerket	52	010104	204	GAS OIL	10578	1A1a
005	Mashedoevaerket	12	010102	111	WOOD AND SIMIL.	125807	1A1a
005	Mashedoevaerket	12	010102	117	STRAW	467182	1A1a
005	Mashedoevaerket	12	010102	204	GAS OIL	991	1A1a
005	Mashedoevaerket	31	010104	204	GAS OIL	21913	1A1a
007	Stigsnaesvaerket	01	010101	102	COAL	2272643	1A1a
007	Stigsnaesvaerket	01	010101	203	RESIDUAL OIL	143140	1A1a
007	Stigsnaesvaerket	02	010101	102	COAL	6796315	1A1a
007	Stigsnaesvaerket	02	010101	203	RESIDUAL OIL	111473	1A1a
008	Asnaesvaerket	01	010101	203	RESIDUAL OIL	77287	1A1a
008	Asnaesvaerket	02	010101	102	COAL	4755522	1A1a
008	Asnaesvaerket	02	010101	203	RESIDUAL OIL	134726	1A1a
008	Asnaesvaerket	03	010101	102	COAL	379041	1A1a
008	Asnaesvaerket	03	010101	203	RESIDUAL OIL	35793	1A1a
008	Asnaesvaerket	04	010101	102	COAL	3724192	1A1a
008	Asnaesvaerket	04	010101	203	RESIDUAL OIL	38991	1A1a
008	Asnaesvaerket	05	010101	203	RESIDUAL OIL	580710	1A1a
008	Asnaesvaerket	05	010101	225	ORIMULSION	23846400	1A1a
009	Statoil Raffinaderi	01	010306	203	RESIDUAL OIL	682280	1A1b
009	Statoil Raffinaderi	01	010306	308	REFINERY GAS	6568024	1A1b
010	Avedoerevaerket	01	010101	102	COAL	16051850	1A1a
010	Avedoerevaerket	01	010101	203	RESIDUAL OIL	61806	1A1a
010	Avedoerevaerket	01	010101	204	GAS OIL	14695	1A1a
010	Avedoerevaerket	02	010104	111	WOOD AND SIMIL.	117062	1A1a
010	Avedoerevaerket	02	010104	117	STRAW	1215692	1A1a
010	Avedoerevaerket	02	010104	203	RESIDUAL OIL	6624653	1A1a
010	Avedoerevaerket	02	010104	301	NATURAL GAS	7757769	1A1a
011	Fynsvaerket	03	010101	102	COAL	963550	1A1a
011	Fynsvaerket	03	010101	114	MUNICIP. WASTES	890980	1A1a
011	Fynsvaerket	03	010101	203	RESIDUAL OIL	61930	1A1a
011	Fynsvaerket	03	010101	301	NATURAL GAS	5913280	1A1a
011	Fynsvaerket	07	010101	102	COAL	12160620	1A1a
011	Fynsvaerket	07	010101	203	RESIDUAL OIL	206020	1A1a
011	Fynsvaerket	08	010101	114	MUNICIP. WASTES	2611150	1A1a
011	Fynsvaerket	08	010101	203	RESIDUAL OIL	55000	1A1a
012	Studstrupvaerket	03	010101	102	COAL	10941110	1A1a
012	Studstrupvaerket	03	010101	203	RESIDUAL OIL	238500	1A1a
012	Studstrupvaerket	04	010101	102	COAL	16009780	1A1a
012	Studstrupvaerket	04	010101	117	STRAW	889080	1A1a
012	Studstrupvaerket	04	010101	203	RESIDUAL OIL	150990	1A1a
014	Vendsysselvaerket	03	010101	102	COAL	18869460	1A1a
014	Vendsysselvaerket	03	010101	203	RESIDUAL OIL	216600	1A1a
014	Vendsysselvaerket	03	010101	204	GAS OIL	14840	1A1a
017	Shell Raffinaderi	01	010306	203	RESIDUAL OIL	680360	1A1b
017	Shell Raffinaderi	01	010306	308	REFINERY GAS	4773776	1A1b
017	Shell Raffinaderi	05	010304	308	REFINERY GAS	2455232	1A1b
018	Skaerbaekvaerket	01	010101	203	RESIDUAL OIL	341140	1A1a
018	Skaerbaekvaerket	03	010101	204	GAS OIL	41190	1A1a
018	Skaerbaekvaerket	03	010101	301	NATURAL GAS	6987650	1A1a
019	Enstedvaerket	03	010101	102	COAL	30974580	1A1a
019	Enstedvaerket	03	010101	203	RESIDUAL OIL	150200	1A1a
019	Enstedvaerket	04	010101	111	WOOD AND SIMIL.	65930	1A1a
019	Enstedvaerket	04	010101	117	STRAW	1753980	1A1a
019	Enstedvaerket	04	010101	204	GAS OIL	20950	1A1a
020	Esbjergvaerket	03	010101	102	COAL	18603150	1A1a
020	Esbjergvaerket	03	010101	203	RESIDUAL OIL	137510	1A1a
022	Oestkraft	05	010102	203	RESIDUAL OIL	9320	1A1a
022	Oestkraft	06	010102	102	COAL	713024	1A1a
022	Oestkraft	06	010102	111	WOOD AND SIMIL.	37905	1A1a
022	Oestkraft	06	010102	203	RESIDUAL OIL	30781	1A1a
023	Danisco Ingredients	01	030102	102	COAL	542112,9	1A2f
023	Danisco Ingredients	01	030102	301	NATURAL GAS	21035,91	1A2f

024	Dansk Naturgas Behandlingsanlaeg	01	010502	301	NATURAL GAS	379362,15	1A1c
025	Horsens Kraftvarmeværk	01	010102	111	WOOD AND SIMIL.	2969	1A1a
025	Horsens Kraftvarmeværk	01	010102	114	MUNICIP. WASTES	859200	1A1a
025	Horsens Kraftvarmeværk	02	010104	301	NATURAL GAS	893452	1A1a
026	Herningværket	01	010102	111	WOOD AND SIMIL.	243170	1A1a
026	Herningværket	01	010102	203	RESIDUAL OIL	15820	1A1a
026	Herningværket	01	010102	301	NATURAL GAS	2560550	1A1a
027	Vestforbrændingen	01	010102	114	MUNICIP. WASTES	2021880	1A1a
027	Vestforbrændingen	01	010102	204	GAS OIL	23457,67	1A1a
027	Vestforbrændingen	02	010102	114	MUNICIP. WASTES	2966608	1A1a
028	Amagerforbrændingen	01	010102	114	MUNICIP. WASTES	4142540	1A1a
029	Randersværket	01	010102	102	COAL	2920674	1A1a
029	Randersværket	01	010102	309	BIOGAS	20466	1A1a
029	Randersværket	02	010102	204	GAS OIL	45623	1A1a
030	Grenaaværket	01	010102	102	COAL	1050880	1A1a
030	Grenaaværket	01	010102	111	WOOD AND SIMIL.	39000	1A1a
030	Grenaaværket	01	010102	114	MUNICIP. WASTES	137208	1A1a
030	Grenaaværket	01	010102	117	STRAW	787673	1A1a
030	Grenaaværket	01	010102	203	RESIDUAL OIL	50258	1A1a
030	Grenaaværket	01	010102	204	GAS OIL	9378	1A1a
031	Hilleroedværket	01	010104	301	NATURAL GAS	3190706	1A1a
032	Helsingørværket	01	010104	301	NATURAL GAS	2019878	1A1a
032	Helsingørværket	02	010105	301	NATURAL GAS	20789	1A1a
034	Stora Dalum	01	030102	301	NATURAL GAS	1169100	1A2f
035	Assens Sukkerfabrik	01	030102	102	COAL	266710	1A2f
035	Assens Sukkerfabrik	01	030102	203	RESIDUAL OIL	120935	1A2f
035	Assens Sukkerfabrik	01	030102	309	BIOGAS	22754	1A2f
036	Kolding Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	726736,3	1A1a
036	Kolding Kraftvarmeværk	02	010103	114	MUNICIP. WASTES	323698	1A1a
037	Maabjergværket	02	010102	111	WOOD AND SIMIL.	443570	1A1a
037	Maabjergværket	02	010102	114	MUNICIP. WASTES	1742510	1A1a
037	Maabjergværket	02	010102	117	STRAW	386090	1A1a
037	Maabjergværket	02	010102	301	NATURAL GAS	209580	1A1a
038	Soenderborg Kraftvarmeværk	01	010102	114	MUNICIP. WASTES	481102	1A1a
038	Soenderborg Kraftvarmeværk	02	010104	301	NATURAL GAS	1178454	1A1a
039	Kara Affaldsforbrændingsanlaeg	01	010102	114	MUNICIP. WASTES	1801188,4	1A1a
039	Kara Affaldsforbrændingsanlaeg	01	010102	301	NATURAL GAS	9771,52	1A1a
040	Viborg Kraftvarmeværk	01	010104	301	NATURAL GAS	2334004	1A1a
042	Nordforbrændingen	01	010102	114	MUNICIP. WASTES	1015274,5	1A1a
045	Aalborg Portland	01	030311	102	COAL	4348589	1A2f
045	Aalborg Portland	01	030311	110	PETROLEUM COKE	7543476	1A2f
045	Aalborg Portland	01	030311	114	MUNICIP. WASTES	1787613	1A2f
045	Aalborg Portland	01	030311	118	SEWAGE SLUDGE	64508	1A2f
045	Aalborg Portland	01	030311	203	RESIDUAL OIL	591804	1A2f
046	Aarhus Nord	01	010102	114	MUNICIP. WASTES	1830728	1A1a
047	Reno Nord	01	010103	111	WOOD AND SIMIL.	1038717	1A1a
047	Reno Nord	01	010103	114	MUNICIP. WASTES	699226,5	1A1a
048	Silkeborg Kraftvarmeværk	01	010104	301	NATURAL GAS	3207206	1A1a
049	Rensningsanlægget Lynetten	01	020103	114	MUNICIP. WASTES	12593,92	1A4a
049	Rensningsanlægget Lynetten	01	020103	204	GAS OIL	43889,5	1A4a
049	Rensningsanlægget Lynetten	01	020103	309	BIOGAS	74286	1A4a
050	I/S Fasan	01	010203	114	MUNICIP. WASTES	934589,7	1A1a
051	AVV Forbrændingsanlæg	01	010103	114	MUNICIP. WASTES	662682	1A1a
052	I/S REFA Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	970453,6	1A1a
053	Svendborg Kraftvarmeværk	01	010102	114	MUNICIP. WASTES	548898	1A1a
053	Svendborg Kraftvarmeværk	01	010102	301	NATURAL GAS	5093,23	1A1a
054	Kommunekemi	01	010102	114	MUNICIP. WASTES	141708	1A1a
054	Kommunekemi	01	010102	203	RESIDUAL OIL	42084	1A1a
054	Kommunekemi	01	010102	204	GAS OIL	18113,34	1A1a
054	Kommunekemi	02	010102	114	MUNICIP. WASTES	655105	1A1a
054	Kommunekemi	02	010102	203	RESIDUAL OIL	37729	1A1a
054	Kommunekemi	02	010102	204	GAS OIL	5093,26	1A1a
054	Kommunekemi	03	010102	114	MUNICIP. WASTES	658875	1A1a
054	Kommunekemi	03	010102	203	RESIDUAL OIL	46927	1A1a
054	Kommunekemi	03	010102	204	GAS OIL	5164,99	1A1a
054	Kommunekemi	04	010104	301	NATURAL GAS	109,36	1A1a
055	I/S Fælles Forbrænding	01	010203	114	MUNICIP. WASTES	282819,6	1A1a
056	Vestfyns Forbrænding	01	010203	114	MUNICIP. WASTES	228332	1A1a
058	I/S Reno Syd	01	010103	114	MUNICIP. WASTES	643403	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	111	WOOD AND SIMIL.	985,8	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	114	MUNICIP. WASTES	551449,5	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	117	STRAW	2668	1A1a
060	Knudmoseværket	01	010103	114	MUNICIP. WASTES	36080	1A1a
060	Knudmoseværket	01	010103	301	NATURAL GAS	8205,37	1A1a
061	Kavo I/S Energin	01	010103	114	MUNICIP. WASTES	674320,5	1A1a
062	VEGA	01	010203	114	MUNICIP. WASTES	589029	1A1a
063	Hadsund Bys Fjernvarmeværk	01	010203	111	WOOD AND SIMIL.	30400	1A1a
063	Hadsund Bys Fjernvarmeværk	01	010203	114	MUNICIP. WASTES	201660	1A1a
064	Aars Fjernvarmeforsyning	01	010103	111	WOOD AND SIMIL.	9445	1A1a
064	Aars Fjernvarmeforsyning	01	010103	114	MUNICIP. WASTES	521349	1A1a
065	Haderslev Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	666358	1A1a
065	Haderslev Kraftvarmeværk	01	010103	301	NATURAL GAS	54	1A1a
066	Frederikshavn Affaldskraftvarmeværk	01	010103	114	MUNICIP. WASTES	352602	1A1a
066	Frederikshavn Affaldskraftvarmeværk	01	010103	204	GAS OIL	1761	1A1a
067	Vejen Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	408470	1A1a
068	Bofa I/S	01	010203	114	MUNICIP. WASTES	193924	1A1a
069	DTU	01	010104	301	NATURAL GAS	1194192	1A1a
070	Næstved Kraftvarmeværk	01	010104	301	NATURAL GAS	407112	1A1a
071	Maricogen	01	030104	204	GAS OIL	896,7	1A2f
071	Maricogen	01	030104	301	NATURAL GAS	2302648	1A2f
072	Hjørring KVV	01	010104	301	NATURAL GAS	1397583	1A1a

Table 2A-29 Large point sources, plant specific emissions (NFR 1A1, 1A2 and 1A4)

lps	lps name	part id	SNAP id	NFR id	SO ₂ Mg	NO _x Mg	NM VOC Mg	CO Mg	TSP Mg	PM ₁₀ Mg ¹⁾	PM _{2,5} Mg ¹⁾	As kg	Cd kg	Cr kg	Cu kg	Hg kg	Ni kg	Pb kg	Se kg	Zn kg	
001	Amagervaerket	01	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		02	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		03	010101	1A1a	x	x			x	x	x	x			x	x	x	x	x	x	x
002	Svanemoellevaerket	05	010101	1A1a		x									x	x	x	x	x	x	x
		07	010104	1A1a		x															
003	H.C.Oerstedsvaerket	03	010101	1A1a	x	x															
		07	010101	1A1a	x	x							x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	21	010101	1A1a	x	x															
		22	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		26	010101	1A1a	x	x															
		28	010101	1A1a	x	x															
		41	010105	1A1a																	
		51	010104	1A1a	x	x															
		52	010104	1A1a	x	x															
005	Masnedoevaerket	12	010102	1A1a	x	x															
		31	010104	1A1a	x	x															
007	Stignaesvaerket	01	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		02	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
008	Asnaesvaerket	02	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		03	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		04	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		05	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
009	Statoil Raffinaderi	01	010306	1A1b	x																
010	Avedoevaerket	01	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		02	010104	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
011	Fynsvaerket	03	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		07	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		08	010101	1A1a	x	x			x	x	x										x
012	Studstrupvaerket	03	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		04	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
014	Vendsysselvaerket	03	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
017	Shell Raffinaderi	01	010306	1A1b	x	x															
		05	010304	1A1b	x	x															
018	Skaerbaekvaerket	01	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		03	010101	1A1a	x	x			x	x	x	x	x	x	x						x
019	Enstedvaerket	03	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		04	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
020	Esbjergvaerket	03	010101	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
022	Oestkraft	05	010102	1A1a	x	x															
		06	010102	1A1a	x	x															
023	Danisco Ingredients	01	030102	1A2f	x																
024	Dansk Naturgas Behandlingsanlaeg	01	010502	1A1c		x															
025	Horsens Kraftvarmevaerk	01	010102	1A1a	x	x			x	x	x	x									x
		02	010104	1A1a		x															
026	Herningvaerket	01	010102	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
027	Vestforbraendingen	01	010102	1A1a	x	x			x	x	x	x									
		02	010102	1A1a																	
028	Amagerforbraendingen	01	010102	1A1a	x	x		x	x	x	x	x									x
029	Randersvaerket	01	010102	1A1a	x	x			x	x	x										x
030	Grenaavaerket	01	010102	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
031	Hilleroedvaerket	01	010104	1A1a		x															
032	Helsingoeravaerket	01	010104	1A1a		x															
		02	010105	1A1a																	
034	Stora Dalum	01	030102	1A2f		x															
035	Assens Sukkerfabrik	01	030102	1A2f	x																
036	Kolding Kraftvarmevaerk	01	010103	1A1a	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x
		02	010103	1A1a	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x
037	Maabjergvaerket	02	010102	1A1a	x	x		x	x	x	x										x
038	Soenderborg Kraftvarmevaerk	01	010102	1A1a	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x
		02	010104	1A1a		x															
039	Kara Affaldsforbraendingsanlaeg	01	010102	1A1a	x				x	x	x	x									x
040	Viborg Kraftvarmevaerk	01	010104	1A1a		x															
042	Nordforbraendingen	01	010102	1A1a	x				x	x	x	x									x
046	Aarhus Nord	01	010102	1A1a	x				x	x	x										x
047	Reno Nord	01	010103	1A1a	x				x	x	x	x	x	x	x	x	x	x	x	x	x
048	Silkeborg Kraftvarmevaerk	01	010104	1A1a		x															
049	Rensningsanlaegget Lynetten	01	020103	1A4a	x				x	x	x	x	x	x	x	x	x	x	x	x	x
050	I/S Fasan	01	010203	1A1a	x	x															
051	AVV Forbrændingsanlaeg	01	010103	1A1a	x				x	x	x	x									x
052	I/S REFA Kraftvarmevaerk	01	010103	1A1a						x	x	x									x
053	Svendborg Kraftvarmevaerk	01	010102	1A1a	x	x		x	x	x	x										x
054	Kommunekemi	01	010102	1A1a	x				x	x	x	x									x
		02	010102	1A1a	x				x	x	x	x									x
		03	010102	1A1a	x				x	x	x	x									x
		04	010104	1A1a		x															
056	Vestfyns Forbrænding	01	010203	1A1a	x	x			x	x	x	x									

Appendix 2A-6 Uncertainty estimates

Table 2A-30 Uncertainty estimation, SO₂

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		Mg SO ₂	Mg SO ₂	%	%	%	%	%	%	%	%	%	
01	SO ₂	134117	10872	2	10	10,198	5,265	-0,041	0,067	-0,408	0,191	0,450	
02	SO ₂	11425	3623	2	20	20,100	3,458	0,013	0,022	0,264	0,064	0,272	
03	SO ₂	15812	6563	2	10	10,198	3,179	0,028	0,041	0,279	0,115	0,301	
Total SO ₂		161355	21058				49,782					0,367	
Total uncertainties				Overall uncertainty in the year (%):				7,056	Trend uncertainty (%):				0,606

Table 2A-31 Uncertainty estimation, NO_x

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		Mg NO _x	Mg NO _x	%	%	%	%	%	%	%	%	%	
01	NO _x	94994	53073	2	20	20,100	14,236	-0,073	0,4589	-1,452	1,298	1,948	
02	NO _x	7871	7446	2	50	50,040	4,973	0,020	0,0644	1,014	0,182	1,030	
03	NO _x	12798	14412	2	20	20,100	3,866	0,053	0,1246	1,057	0,352	1,114	
Total NO _x		115662	74931				242,349					6,097	
Total uncertainties				Overall uncertainty in the year (%):				15,568	Trend uncertainty (%):				2,469

Table 2A-32 Uncertainty estimation, NMVOC

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		Mg NMVOC	Mg NMVOC	%	%	%	%	%	%	%	%	%	
01	NMVOC	1108	4299	2	50	50,040	11,570	0,211	0,3382	10,528	0,957	10,571	
02	NMVOC	10991	13369	2	50	50,040	35,979	-0,211	1,0517	-10,556	2,975	10,967	
03	NMVOC	614	926	2	50	50,040	2,491	0,002	0,0728	0,110	0,206	0,234	
Total NMVOC		12713	18594				1434,549					232,074	
Total uncertainties				Overall uncertainty in the year (%):				37,875	Trend uncertainty (%):				15,234

Table 2A-33 Uncertainty estimation, CO

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data Mg CO	Input data Mg CO	Input data %	Input data %	%	%	%	%	%	%	%	
01	CO	8982	12539	2	20	20,100	1,508	0,015	0,086	0,301	0,245	0,388	
02	CO	130963	149434	2	50	50,040	44,729	-0,010	1,030	-0,517	2,914	2,959	
03	CO	5100	5203	2	20	20,100	0,626	-0,005	0,036	-0,093	0,101	0,138	
Total CO		145045	167176				2003,377					8,928	
Total uncertainties				Overall uncertainty in the year (%):				44,759	Trend uncertainty (%):				2,988

Table 2A-34 Uncertainty estimation, TSP

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data kg TSP	Input data kg TSP	Input data %	Input data %	%	%	%	%	%	%	%	
01	TSP	1144	1332	2	50	50,040	11,524	0,030	0,234	1,498	0,661	1,637	
02	TSP	3385	3415	2	500	500,004	295,123	-0,004	0,599	-1,901	1,695	2,547	
03	TSP	1170	1038	2	50	50,040	8,980	-0,026	0,182	-1,307	0,515	1,405	
Total TSP		5699	5785				87311,041					11,142	
Total uncertainties				Overall uncertainty in the year (%):				295,484	Trend uncertainty (%):				3,338

Table 2A-35 Uncertainty estimation, PM₁₀

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data kg PM ₁₀	Input data kg PM ₁₀	Input data %	Input data %	%	%	%	%	%	%	%	
01	PM ₁₀	937	1074	2	50	50,040	10,656	0,026	0,215	1,278	0,608	1,415	
02	PM ₁₀	3199	3223	2	500	500,004	319,607	-0,001	0,645	-0,628	1,825	1,930	
03	PM ₁₀	859	745	2	50	50,040	7,398	-0,024	0,149	-1,215	0,422	1,286	
Total PM ₁₀		4994	5043				102317,094					7,382	
Total uncertainties				Overall uncertainty in the year (%):				319,870	Trend uncertainty (%):				2,717

Table 2A-36 Uncertainty estimation, PM_{2.5}

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		kg PM _{2.5}	kg PM _{2.5}	%	%	%	%	%	%	%	%	%	
01	PM _{2.5}	801	903	2	50	50,040	10,297	0,021	0,209	1,034	0,591	1,191	
02	PM _{2.5}	3010	3026	2	500	500,004	344,963	-0,007	0,700	-3,288	1,981	3,839	
03	PM _{2.5}	511	458	2	50	50,040	5,219	-0,014	0,106	-0,704	0,299	0,765	
Total	PM _{2.5}	4322	4386				119133,070					16,740	
Total uncertainties				Overall uncertainty in the year (%):				345,157	Trend uncertainty (%):				4,091

Table 2A-37 Uncertainty estimation, As

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		kg As	kg As	%	%	%	%	%	%	%	%	%	
01	As	972	414	2	100	100,020	56,899	-0,051	0,286	-5,118	0,809	5,181	
02	As	127	82	2	1000	1000,002	113,007	0,013	0,057	12,630	0,161	12,631	
03	As	349	232	2	100	100,020	31,818	0,039	0,160	3,879	0,453	3,905	
Total	As	1448	728				17020,547					201,641	
Total uncertainties				Overall uncertainty in the year (%):				130,463	Trend uncertainty (%):				14,200

Table 2A-38 Uncertainty estimation, Cd

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		kg Cd	kg Cd	%	%	%	%	%	%	%	%	%	
01	Cd	621	230	2	100	100,020	37,587	-0,112	0,213	-11,248	0,602	11,264	
02	Cd	145	147	2	1000	1000,002	239,993	0,060	0,136	59,926	0,384	59,927	
03	Cd	314	235	2	100	100,020	38,429	0,053	0,218	5,296	0,615	5,332	
Total	Cd	1080	611				60486,031					3746,537	
Total uncertainties				Overall uncertainty in the year (%):				245,939	Trend uncertainty (%):				61,209

Table 2A-39 Uncertainty estimation, Cr

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg Cr	kg Cr	%	%	%	%	%	%	%	%	%
01	Cr	4845	511	2	100	100,020	36,580	-0,090	0,082	-9,014	0,231	9,017
02	Cr	326	107	2	1000	1000,002	76,489	0,005	0,017	5,463	0,048	5,463
03	Cr	1097	780	2	100	100,020	55,789	0,085	0,124	8,522	0,352	8,529
Total	Cr	6268	1398				10301,150					183,896
Total uncertainties		Overall uncertainty in the year (%):						101,495	Trend uncertainty (%):			13,561

Table 2A-40 Uncertainty estimation, Cu

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg Cu	kg Cu	%	%	%	%	%	%	%	%	%
01	Cu	3028	646	2	100	100,020	56,392	-0,075	0,173	-7,546	0,490	7,562
02	Cu	302	187	2	1000	1000,002	163,570	0,025	0,050	25,383	0,142	25,384
03	Cu	401	312	2	100	100,020	27,268	0,051	0,084	5,061	0,237	5,067
Total	Cu	3731	1146				30678,587					727,197
Total uncertainties		Overall uncertainty in the year (%):						175,153	Trend uncertainty (%):			26,967

Table 2A-41 Uncertainty estimation, Hg

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg Hg	kg Hg	%	%	%	%	%	%	%	%	%
01	Hg	2634	664	2	100	100,020	56,718	-0,093	0,208	-9,323	0,587	9,341
02	Hg	330	223	2	1000	1000,002	190,449	0,032	0,070	31,957	0,197	31,958
03	Hg	234	284	2	100	100,020	24,253	0,062	0,089	6,196	0,251	6,201
Total	Hg	3198	1171				40075,948					1147,000
Total uncertainties		Overall uncertainty in the year (%):						200,190	Trend uncertainty (%):			33,867

Table 2A-42 Uncertainty estimation, Ni

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		kg Ni	kg Ni	%	%	%	%	%	%	%	%	%	
01	Ni	8585	4526	2	100	100,020	39,247	-0,003	0,210	-0,324	0,594	0,677	
02	Ni	1852	1240	2	1000	1000,002	107,471	0,012	0,058	11,513	0,163	11,514	
03	Ni	11109	5769	2	100	100,020	50,024	-0,008	0,268	-0,823	0,757	1,118	
Total Ni		21546	11535				15592,691					134,281	
Total uncertainties				Overall uncertainty in the year (%):				124,871	Trend uncertainty (%):				11,588

Table 2A-43 Uncertainty estimation, Pb

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		kg Pb	kg Pb	%	%	%	%	%	%	%	%	%	
01	Pb	12739	2331	2	100	100,020	63,745	-0,035	0,145	-3,488	0,410	3,512	
02	Pb	946	230	2	1000	1000,002	62,888	0,001	0,014	0,929	0,040	0,930	
03	Pb	2401	1096	2	100	100,020	29,985	0,034	0,068	3,418	0,193	3,423	
Total Pb		16085	3657				8917,454					24,919	
Total uncertainties				Overall uncertainty in the year (%):				94,432	Trend uncertainty (%):				4,992

Table 2A-44 Uncertainty estimation, Se

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions	
		Input data	Input data	Input data	Input data								
		kg Se	kg Se	%	%	%	%	%	%	%	%	%	
01	Se	2958	731	2	100	100,020	41,460	-0,108	0,169	-10,845	0,477	10,856	
02	Se	308	190	2	1000	1000,002	107,712	0,015	0,044	14,849	0,124	14,850	
03	Se	1065	842	2	100	100,020	47,787	0,094	0,194	9,410	0,550	9,426	
Total Se		4331	1763				15604,372					427,2243787	
Total uncertainties				Overall uncertainty in the year (%):				124,92	Trend uncertainty (%):				20,669

Table 2A-45 Uncertainty estimation, Zn

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg Zn	kg Zn	%	%	%	%	%	%	%	%	%
01	Zn	15534	13636	2	100	100,020	74,360	-0,028	0,680	-2,836	1,923	3,426
02	Zn	2811	2643	2	1000	1000,002	144,113	0,004	0,132	3,573	0,373	3,592
03	Zn	1707	2062	2	100	100,020	11,246	0,025	0,103	2,498	0,291	2,515
Total	Zn	20052	18342				26424,344					30,967
Total uncertainties		Overall uncertainty in the year (%):					162,56	Trend uncertainty (%):				5,565

Table 2A-46 Uncertainty estimation, Benzo(b)fluoranthene

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg	kg	%	%	%	%	%	%	%	%	%
01		34	10	2	100	100,020	0,275	-0,017	0,004	-1,686	0,012	1,686
02		2391	3652	2	1000	1000,002	971,520	0,008	1,476	7,770	4,175	8,820
03		49	97	2	100	100,020	2,574	0,009	0,039	0,902	0,111	0,909
Total		2474	3760				943857,442					81,470
Total uncertainties		Overall uncertainty in the year (%):					971,52	Trend uncertainty (%):				9,026

Table 2A-47 Uncertainty estimation, Benzo(k)fluoranthene

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty i trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg	kg	%	%	%	%	%	%	%	%	%
01		11	16	2	100	100,020	1,273	-0,003	0,020	-0,308	0,057	0,313
02		749	1206	2	1000	1000,002	969,812	0,021	1,541	21,189	4,359	21,633
03		23	22	2	100	100,020	1,747	-0,018	0,028	-1,831	0,078	1,832
Total		783	1244				940540,842					471,426
Total uncertainties		Overall uncertainty in the year (%):					969,82	Trend uncertainty (%):				21,712

Table 2A-48 Uncertainty estimation, Benzo(a)pyrene

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg	kg	%	%	%	%	%	%	%	%	%
01		9	10	2	100	100,020	0,361	-0,002	0,005	-0,177	0,015	0,178
02		1880	2804	2	1000	1000,002	987,223	-0,003	1,476	-3,392	4,175	5,379
03		11	26	2	100	100,020	0,917	0,005	0,014	0,520	0,039	0,521
Total		1899	2840				974610,747					29,241
Total uncertainties		Overall uncertainty in the year (%):					987,22	Trend uncertainty (%):				5,407

Table 2A-49 Uncertainty estimation, Indeno(1,2,3-c,d)pyrene

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg	kg	%	%	%	%	%	%	%	%	%
01		7	11	2	100	100,020	0,539	0,001	0,007	0,130	0,020	0,132
02		1552	2037	2	1000	1000,002	990,755	0,005	1,295	4,910	3,664	6,126
03		14	8	2	100	100,020	0,386	-0,006	0,005	-0,626	0,014	0,626
Total		1572	2056				981596,836					37,940
Total uncertainties		Overall uncertainty in the year (%):					990,76	Trend uncertainty (%):				6,160

Appendix 2A-7 Lower Calorific Value (LCV) of fuels

Table 2A-50 Time series for calorific values of fuels (Danish Energy Authority, DEA 2003b)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Crude Oil, Average	GJ / ton	42,40	42,40	42,40	42,70	42,70	42,70	42,70	43,00	43,00	43,00	43,00	43,00	43,00
Crude Oil, Golf	GJ / ton	41,80	41,80	41,80	41,80	41,80	41,80	41,80	41,80	41,80	41,80	41,80	41,80	41,80
Crude Oil, North Sea	GJ / ton	42,70	42,70	42,70	42,70	42,70	42,70	42,70	43,00	43,00	43,00	43,00	43,00	43,00
Refinery Feedstocks	GJ / ton	41,60	41,60	41,60	41,60	41,60	41,60	41,60	42,70	42,70	42,70	42,70	42,70	42,70
Refinery Gas	GJ / ton	52,00	52,00	52,00	52,00	52,00	52,00	52,00	52,00	52,00	52,00	52,00	52,00	52,00
LPG	GJ / ton	46,00	46,00	46,00	46,00	46,00	46,00	46,00	46,00	46,00	46,00	46,00	46,00	46,00
Naphtha (LVN)	GJ / ton	44,50	44,50	44,50	44,50	44,50	44,50	44,50	44,50	44,50	44,50	44,50	44,50	44,50
Motor Gasoline	GJ / ton	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80
Aviation Gasoline	GJ / ton	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80
JP4	GJ / ton	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80	43,80
Other Kerosene	GJ / ton	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50
JP1	GJ / ton	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50
Gas/Diesel Oil	GJ / ton	42,70	42,70	42,70	42,70	42,70	42,70	42,70	42,70	42,70	42,70	42,70	42,70	42,70
Fuel Oil	GJ / ton	40,40	40,40	40,40	40,40	40,40	40,40	40,70	40,65	40,65	40,65	40,65	40,65	40,65
Orimulsion	GJ / ton	27,60	27,60	27,60	27,60	27,60	28,13	28,02	27,72	27,84	27,58	27,62	27,64	27,71
Petroleum Coke	GJ / ton	31,40	31,40	31,40	31,40	31,40	31,40	31,40	31,40	31,40	31,40	31,40	31,40	31,40
Waste Oil	GJ / ton	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90
White Spirit	GJ / ton	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50	43,50
Bitumen	GJ / ton	39,80	39,80	39,80	39,80	39,80	39,80	39,80	39,80	39,80	39,80	39,80	39,80	39,80
Lubricants	GJ / ton	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90	41,90
Natural Gas	GJ / 1000 Nm ³	39,00	39,00	39,00	39,30	39,30	39,30	39,30	39,60	39,90	40,00	40,15	39,99	40,06
Town Gas	GJ / 1000 m ³							17,00	17,00	17,00	17,00	17,01	16,88	17,39
Electricity Plant Coal	GJ / ton	25,30	25,40	25,80	25,20	24,50	24,50	24,70	24,96	25,00	25,00	24,80	24,90	25,15
Other Hard Coal	GJ / ton	26,10	26,50	26,50	26,50	26,50	26,50	26,50	26,50	26,50	26,50	26,50	26,50	26,50
Gas Plant Coal	GJ / ton													
Coke	GJ / ton	31,80	29,30	29,30	29,30	29,30	29,30	29,30	29,30	29,30	29,30	29,30	29,30	29,30
Brown Coal Briquettes	GJ / ton	18,30	18,30	18,30	18,30	18,30	18,30	18,30	18,30	18,30	18,30	18,30	18,30	18,30
Straw	GJ / ton	14,50	14,50	14,50	14,50	14,50	14,50	14,50	14,50	14,50	14,50	14,50	14,50	14,50
Wood Chips	GJ/Rum-meter	2,80	2,80	2,80	2,80	2,80	2,80	2,80	2,80	2,80	2,80	2,80	2,80	2,80
Firewood, Hardwood	GJ / m ³	10,40	10,40	10,40	10,40	10,40	10,40	10,40	10,40	10,40	10,40	10,40	10,40	10,40
Firewood, Conifer	GJ / m ³	7,60	7,60	7,60	7,60	7,60	7,60	7,60	7,60	7,60	7,60	7,60	7,60	7,60
Wood Pellets	GJ / ton	17,50	17,50	17,50	17,50	17,50	17,50	17,50	17,50	17,50	17,50	17,50	17,50	17,50
Wood Waste	GJ / ton	14,70	14,70	14,70	14,70	14,70	14,70	14,70	14,70	14,70	14,70	14,70	14,70	14,70
Wood Waste	GJ/Rum-meter	3,20	3,20	3,20	3,20	3,20	3,20	3,20	3,20	3,20	3,20	3,20	3,20	3,20
Biogas	GJ / 1000 m ³								23,00	23,00	23,00	23,00	23,00	23,00
Waste Combustion	GJ / ton	8,20	8,20	9,00	9,40	9,40	10,00	10,50	10,50	10,50	10,50	10,50	10,50	10,50
Fish Oil	GJ / ton	37,20	37,20	37,20	37,20	37,20	37,20	37,20	37,20	37,20	37,20	37,20	37,20	37,20

Table 2A-51 Fuel category correspondance list, Danish Energy Authority & NERI

Danish Energy Authority	NERI Emission database
Other Hard Coal	Coal
Coke	Coke oven coke
Electricity Plant Coal	Coal
Brown Coal Briquettes	Brown coal briq.
Orimulsion	Orimulsion
Petroleum Coke	Petroleum coke
Fuel Oil	Residual oil
Waste Oil	Residual oil
Gas/Diesel Oil	Gas oil
Other Kerosene	Kerosene
LPG	LPG
Refinery Gas	Refinery gas
Town Gas	Natural gas
Natural Gas	Natural gas
Straw	Straw
Wood Waste	Wood and simil.
Wood Pellets	Wood and simil.
Wood Chips	Wood and simil.
Firewood, Hardwood & Conifer	Wood and simil.
Waste Combustion	Municip. wastes
Fish Oil	Municip. wastes
Biogas	Biogas
Biogas, other	Biogas
Biogas, landfill	Biogas
Biogas, sewage sludge	Biogas

1) CO₂ from plastic part included in Other fuels

Appendix 2A-8 Emission inventory 2002 based on SNAP sectors

Table 2A-52 Emission inventory 2002 based on SNAP sectors

SNAP 2)	SO2 [Mg]	NOX [Mg]	NMVOG [Mg]	CH4 [Mg]	CO [Mg]	CO2 1) [Gg]	N2O [Mg]	TSP [Mg]	PM10 [Mg]	PM _{2.5} [Mg]	As [kg]	Cd [kg]	Cr [kg]	Cu [kg]	Hg [kg]	Ni [kg]	Pb [kg]	Se [kg]	Zn [kg]	Flouran- the [kg]	Benzo(b) [kg]	Benzo(k) [kg]	Benzo(a) [kg]	Benzo (g,i) [kg]	Indeno [kg]
Total 01	10872	53073	4299	16184	12539	31567	852	1332	1074	903	414	230	511	646	664	4526	2331	731	13636	274	40	16	10	24	11
0101	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
010101	7231	29079	373	448	2532	19430	570	755	615	511	145	29	243	192	195	1562	350	635	2518	54	14	3	3	8	5
010102	920	4034	46	39	591	3027	43	96	78	64	142	77	82	209	107	193	1122	62	7020	2	0	0	0	0	0
010103	524	1344	16	18	216	1163	13	56	42	34	80	38	28	95	153	87	541	1	2539	4	0	0	0	0	0
010104	258	3051	64	66	391	2383	81	72	71	59	11	3	11	11	1	1302	14	5	1	14	3	1	1	2	1
010105	44	5694	3307	15127	5386	1755	37	26	6	5	0	0	0	0	0	0	0	0	1	4	1	1	0	0	0
0102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010202	60	82	15	12	92	68	2	7	5	4	2	3	4	3	3	78	4	2	34	4	1	0	0	0	0
010203	900	1680	419	296	2320	1271	46	175	126	101	16	61	98	118	200	428	267	9	1520	190	20	11	6	13	4
010204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010303	0	100	4	2	15	57	2	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010304	5	397	-	-	37	140	5	12	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010306	922	1057	-	-	211	752	25	125	111	104	19	18	45	18	6	875	32	17	4	2	1	0	0	0	0
0104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010407	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010502	8	6501	52	157	734	1502	26	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010503	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010504	0	31	0	0	2	14	1	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010505	1	24	2	19	13	4	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total 02	3623	7446	13369	7565	149434	7735	212	3415	3223	3026	82	147	107	187	223	1240	230	190	2643	13440	3652	1206	2804	3784	2037
0201	247	615	612	244	578	860	21	167	165	156	10	12	15	16	13	226	21	23	180	777	216	72	164	223	117
020101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020103	296	8	1	1	6	14	0	35	30	24	10	2	5	4	30	7	25	0	5	0	0	-	-	0	0
020104	0	5	0	0	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020105	10	448	136	729	326	104	2	2	1	0	-	-	-	-	-	-	-	-	0	1	0	0	0	0	0
020106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0202	1786	4674	10801	3755	146801	5699	161	3095	2936	2770	38	111	35	141	156	118	134	138	2377	12171	3319	1106	2534	3431	1789
020201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020202	0	1	0	0	1	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020204	0	234	163	724	244	80	2	1	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	0	0
020205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0203	1276	822	1294	461	886	777	22	111	91	74	25	21	51	26	24	885	50	29	81	490	117	28	105	130	131
020301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
020302	2	1	3	1	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0

020303	0	8	0	0	0	4	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
020304	6	629	360	1649	591	193	4	3	1	1	0	0	0	0	0	2	0	0	0	1	0	0	0	0	
020305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total 03	6631	14829	927	1635	5211	6025	170	1038	745	458	232	235	780	312	284	5769	1096	842	2062	3430	97	22	26	9	8
0301	4884	4038	500	508	3030	3710	93	322	234	168	119	152	259	161	92	4791	228	106	1105	196	15	13	2	5	4
030101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030102	708	513	120	101	582	428	14	56	39	29	13	25	26	27	19	477	29	9	303	20	4	4	0	1	1
030103	33	64	21	14	104	49	2	9	6	5	1	4	2	4	3	41	3	1	58	2	1	1	0	0	0
030104	2	623	9	10	42	385	15	1	0	0	-	-	-	-	-	-	-	0	0	-	0	-	0	0	0
030105	1	270	181	809	276	90	2	1	0	0	-	-	-	-	-	0	-	-	-	0	0	0	0	0	0
030106	0	2	0	0	1	2	0	0	0	0	0	-	0	0	0	-	0	0	0	0	-	-	-	-	-
0302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030303	-	-	-	-	-	-	-	175	52	8	26	12	96	-	-	113	629	437	437	-	-	-	-	-	-
030304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030307	-	-	-	-	-	-	-	2	1	1	-	0	-	-	1	-	9	-	-	-	-	-	-	-	-
030308	-	-	-	-	-	-	-	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030309	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030310	-	-	-	-	-	-	-	31	27	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030311	935	8903	95	191	1169	1361	44	185	166	74	54	19	27	27	162	54	27	19	135	3212	77	4	24	3	3
030312	-	-	-	-	-	-	-	37	18	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030315	67	417	1	-	8	-	-	25	23	20	18	23	370	92	8	293	172	271	25	-	-	-	-	-	-
030316	-	-	-	-	-	-	-	114	103	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030318	-	-	-	-	-	-	-	81	73	57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030319	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030323	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
030327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1) Including CO₂ emission from biomass

2) SNAP sector codes are shown in Appendix 2A-2

Annex 2B

Transport

Annex 2.B.1 Fleet data 1990-2002 for road transport (No. vehicles)

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Passenger Cars	Gasoline <1,4 l	PRE ECE	46209	44014	42804	36466	39959	37597	37130	3434	2761	2103	1744	1614	1475
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	187912	161642	139010	119424	80742	67991	53302	44338	31104	22511	17980	15837	14155
Passenger Cars	Gasoline <1,4 l	ECE 15/02	86959	80041	73306	66422	50119	43384	35052	26097	17585	10873	7348	5544	4203
Passenger Cars	Gasoline <1,4 l	ECE 15/03	300791	294878	288227	280146	261998	250043	235177	215301	183113	147111	118929	97930	79016
Passenger Cars	Gasoline <1,4 l	ECE 15/04	272012	270182	268686	268154	265860	262990	259954	265188	264791	254032	235890	219216	194543
Passenger Cars	Gasoline <1,4 l	Euro I	10000	49608	87121	122067	177991	230063	282488	289374	275572	273582	270268	267260	261791
Passenger Cars	Gasoline <1,4 l	Euro II								58502	119142	170981	209279	205833	201734
Passenger Cars	Gasoline <1,4 l	Euro III												34695	73385
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	35940	34233	33292	28362	31079	29242	28879	2671	2148	1635	1356	1255	1147
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	127631	109641	94188	80844	54600	45991	36079	30465	21520	15647	12537	11077	9923
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	55063	50674	46402	42040	31712	27445	22173	16509	11141	6870	4642	3500	2659
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	174545	170750	166596	161592	150612	143386	133413	122642	103931	83270	67222	55300	44572
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	180298	178950	177873	177525	176045	174195	172298	176155	179510	172582	160800	149915	133745
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	10000	45647	82427	119744	184854	250826	322960	330407	315731	313279	309587	306414	300335
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II								80440	163821	235099	287758	283021	277385
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III												47705	100904
Passenger Cars	Gasoline >2,0 l	PRE ECE	3423	3260	3171	2701	2960	2785	2750	254	205	156	129	120	109
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	10781	9234	7914	6781	4567	3849	3022	2619	1881	1366	1110	986	885
Passenger Cars	Gasoline >2,0 l	ECE 15/02	4392	4043	3702	3355	2531	2191	1770	1318	888	549	371	280	212
Passenger Cars	Gasoline >2,0 l	ECE 15/03	24667	24157	23595	22912	21429	20432	19053	17571	14934	12016	9722	8009	6459
Passenger Cars	Gasoline >2,0 l	ECE 15/04	15679	15524	15390	15339	15120	14844	14546	14977	23975	22975	21251	19699	17377
Passenger Cars	Gasoline >2,0 l	Euro I	10000	13961	17871	21674	28044	34257	40813	41567	31121	30887	30519	30193	29586
Passenger Cars	Gasoline >2,0 l	Euro II								7313	14893	21373	26160	25729	25217
Passenger Cars	Gasoline >2,0 l	Euro III												4337	9173
Passenger Cars	Diesel <2,0 l	Euro I		4041	8031	11912	18412	24751	31440	31580	31998	35415	39518	43826	48984
Passenger Cars	Diesel <2,0 l	Euro II								7316	15312	24505	33856	37328	41736
Passenger Cars	Diesel <2,0 l	Euro III												6313	15219
Passenger Cars	Diesel <2,0 l	Conventional	79709	75788	72288	68529	62139	58843	55000	48153	43893	43004	42861	42885	42300
Passenger Cars	Diesel >2,0 l	Euro I		213	423	627	969	1303	1655	1662	1684	1864	2087	2313	2583
Passenger Cars	Diesel >2,0 l	Euro II								385	806	1290	1789	1971	2202
Passenger Cars	Diesel >2,0 l	Euro III												332	801
Passenger Cars	Diesel >2,0 l	Conventional	3702	3556	3425	3281	3040	2905	2746	2461	2266	2237	2228	2229	2187
Passenger Cars	LPG	Conventional	286	286	288	289	289	301	311	172	97	44	32	63	21
Passenger Cars	2-Stroke	Conventional	5417	4804	4308	3747	3029	2443	1665	1248	761	400	300	200	150
Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Light Duty Vehicles	Gasoline <3,5t	Conventional	42333	43215	44179	45486	47261	44601	41519	37209	34454	31489	28488	25423	21615

Light Duty Vehicles	Gasoline <3,5t	Euro I						4259	8524	12645	17212	16632	15979	15527	15049
Light Duty Vehicles	Gasoline <3,5t	Euro II										4705	9299	14017	13917
Light Duty Vehicles	Gasoline <3,5t	Euro III													5140
Light Duty Vehicles	Diesel <3,5 t	Conventional	155543	158781	162324	167129	173650	163877	152553	142109	131572	122992	115695	105397	92990
Light Duty Vehicles	Diesel <3,5 t	Euro I						15648	31318	48292	65727	64964	64894	64370	64743
Light Duty Vehicles	Diesel <3,5 t	Euro II										18376	37766	58112	59870
Light Duty Vehicles	Diesel <3,5 t	Euro III													22112
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	250	255	260	268	279	288	295	261	274	253	257	249	249
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	5108	5214	5330	5488	5205	4891	4532	3999	3692	3079	2406	1979	1739
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I					497	1004	1506	1440	1435	1269	1057	951	956
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II								529	1087	1487	1703	1990	2064
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro III													484
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	10286	10500	10734	11052	10482	9850	9126	7800	6603	5613	5085	4210	3136
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I					1001	2022	3033	2808	2566	2314	2235	2024	1724
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II								1032	1945	2710	3600	4234	3724
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro III													872
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	13034	13306	13602	14005	13283	12481	11564	10720	9832	8982	7933	6814	5525
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I					1268	2562	3844	3859	3821	3702	3486	3276	3037
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II								1419	2896	4336	5616	6853	6560
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III													1537
Heavy Duty Vehicles	Diesel >32t	Conventional	11446	11684	11944	12298	11664	10960	10154	9337	8720	8180	7361	6527	5486
Heavy Duty Vehicles	Diesel >32t	Euro I					1114	2250	3376	3362	3389	3371	3234	3138	3016
Heavy Duty Vehicles	Diesel >32t	Euro II								1236	2568	3949	5211	6564	6514
Heavy Duty Vehicles	Diesel >32t	Euro III													1526
Buses	Urban Buses	Conventional	4753	4561	4522	4490	4083	3635	3261	2946	2792	2542	2319	2319	1977
Buses	Urban Buses	Euro I					390	746	1084	1060	972	913	852	852	752
Buses	Urban Buses	Euro II								390	729	1053	1345	1345	1525
Buses	Urban Buses	Euro III													346
Buses	Coaches	Conventional	3327	2868	3007	3086	2927	4507	4156	3662	3369	3007	2724	2724	2165
Buses	Coaches	Euro I					280	925	1381	1318	1173	1080	1001	1001	823
Buses	Coaches	Euro II								485	879	1246	1579	1579	1670
Buses	Coaches	Euro III													379
Mopeds	<50 cm ³	Conventional	120000	118000	113000	109000	105000	114167	123333	132500	141667	150833	150522	149460	146077
Mopeds	<50 cm ³	97/24/EC I											9478	15540	24923
Motorcycles	2-stroke >50 cm ³	Conventional	6617	6804	6904	7111	7406	7672	8214	8980	9598	10385	11054	11367	11582
Motorcycles	4-stroke <250 cm ³	Conventional	7499	7712	7824	8059	8394	8695	9310	10177	10878	11769	11916	11367	12882
Motorcycles	4-stroke <250 cm ³	97/24/EC											613	1074	1348
Motorcycles	4-stroke 250 - 750 cm ³	Conventional	20622	21207	21516	22162	23083	23911	25602	27986	29914	32365	32768	33910	35424
Motorcycles	4-stroke 250 - 750 cm ³	97/24/EC											1685	2953	3707
Motorcycles	4-stroke >750 cm ³	Conventional	9374	9639	9780	10074	10492	10869	11637	12721	13597	14712	14894	15414	16102
Motorcycles	4-stroke >750 cm ³	97/24/EC											766	1342	1685

Annex 2.B.2 Mileage data 1990-2002 for road transport (km)

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Passenger Cars	Gasoline <1,4 l	PRE ECE	10352	11120	11847	12282	12679	12387	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	12073	12735	13119	13036	12679	12387	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline <1,4 l	ECE 15/02	13225	13605	14495	15028	15513	13532	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline <1,4 l	ECE 15/03	16370	16830	16920	16820	16701	15701	14867	14403	14225	13461	12591	11922	11743
Passenger Cars	Gasoline <1,4 l	ECE 15/04	19941	20341	20763	20356	19947	18688	17564	16233	15648	14929	14356	12416	13780
Passenger Cars	Gasoline <1,4 l	Euro I	22535	23984	25041	25397	25885	24768	23130	22344	21207	19843	18497	18409	17226
Passenger Cars	Gasoline <1,4 l	Euro II								25981	25671	24357	24054	22954	21396
Passenger Cars	Gasoline <1,4 l	Euro III												25954	25172
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	10352	11120	11847	12282	12679	12387	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	12073	12735	13119	13036	12679	12387	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	13225	13605	14495	15028	15513	13532	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	16370	16830	16920	16820	16701	15701	14867	14403	14225	13461	12591	11922	11743
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	19941	20341	20763	20356	19947	18688	17564	16233	15648	14929	14356	12416	13780
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	22535	23984	25041	25397	25885	24768	23130	22344	21207	19843	18497	18409	17226
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II								25981	25671	24357	24054	22954	21396
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III												25954	25172
Passenger Cars	Gasoline >2,0 l	PRE ECE	10352	11120	11847	12282	12679	12387	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	12073	12735	13119	13036	12679	12387	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline >2,0 l	ECE 15/02	13225	13605	14495	15028	15513	13532	12152	11935	11988	11691	11507	11922	11743
Passenger Cars	Gasoline >2,0 l	ECE 15/03	16370	16830	16920	16820	16701	15701	14867	14403	14225	13461	12591	11922	11743
Passenger Cars	Gasoline >2,0 l	ECE 15/04	19941	20341	20763	20356	19947	18688	17564	16233	15648	14929	14356	12416	13780
Passenger Cars	Gasoline >2,0 l	Euro I	22535	23984	25041	25397	25885	24768	23130	22344	21207	19843	18497	18409	17226
Passenger Cars	Gasoline >2,0 l	Euro II								25981	25671	24357	24054	22954	21396
Passenger Cars	Gasoline >2,0 l	Euro III												25954	25172
Passenger Cars	Diesel <2,0 l	Euro I		44822	44911	43972	44800	44746	43410	41641	39363	38090	35677	34320	33095
Passenger Cars	Diesel <2,0 l	Euro II								47992	47256	46753	45221	42794	41107
Passenger Cars	Diesel <2,0 l	Euro III												48385	48362
Passenger Cars	Diesel <2,0 l	Conventional	30874	30888	30400	29591	29501	29228	28169	27809	27304	27242	26288	22832	25212
Passenger Cars	Diesel >2,0 l	Euro I		44822	44911	43972	44800	44746	43410	41641	39363	38090	35677	34320	33095
Passenger Cars	Diesel >2,0 l	Euro II								47992	47256	46753	45221	42794	41107
Passenger Cars	Diesel >2,0 l	Euro III												48385	48362
Passenger Cars	Diesel >2,0 l	Conventional	30874	30888	30400	29591	29501	29228	28169	27809	27304	27242	26288	22832	25212
Passenger Cars	LPG	Conventional	16370	16830	16920	16820	16701	15701	14867	12868	14225	13461	12591	11922	11743
Passenger Cars	2-Stroke	Conventional	16370	16830	16920	16820	16701	15701	14867	12868	14225	13461	12591	11922	11743

Sector	Subsector	Tech	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Light Duty Vehicles	Gasoline <3,5t	Conventional	20255	20573	21208	21167	21003	20157	20005	19559	18762	18082	18101	16619	18399
Light Duty Vehicles	Gasoline <3,5t	Euro I						20157	20005	19559	18762	18082	18101	16619	18399
Light Duty Vehicles	Gasoline <3,5t	Euro II										18082	18101	16619	18399
Light Duty Vehicles	Gasoline <3,5t	Euro III													18399
Light Duty Vehicles	Diesel <3,5 t	Conventional	40234	40672	38721	37230	38732	36909	37282	37023	35010	34193	32789	32130	32060
Light Duty Vehicles	Diesel <3,5 t	Euro I						36909	37282	37023	35010	34193	32789	32130	32060
Light Duty Vehicles	Diesel <3,5 t	Euro II										34193	32789	32130	32060
Light Duty Vehicles	Diesel <3,5 t	Euro III													32060
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	24464	24848	25614	25565	25367	24346	24162	21140	21559	21272	22009	23191	25362
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	41061	41509	39516	37996	39528	37666	38048	30803	31809	33583	34246	44099	43711
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I					39528	37666	38048	30803	31809	33583	34246	44099	43711
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II								30803	31809	33583	34246	44099	43711
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro III													43711
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	49634	50175	47767	45929	47781	45532	45991	43199	42348	39158	37550	20945	17878
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I					47781	45532	45991	43199	42348	39158	37550	20945	17878
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II								43199	42348	39158	37550	20945	17878
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro III													17878
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	68996	69748	66402	63845	66422	63294	63934	64717	65653	66838	64092	68254	66841
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I					66422	63294	63934	64717	65653	66838	64092	68254	66841
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II								64717	65653	66838	64092	68254	66841
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III													66841
Heavy Duty Vehicles	Diesel >32t	Conventional	68996	69748	66402	63845	66422	63294	63934	64717	65653	66838	64092	68254	66841
Heavy Duty Vehicles	Diesel >32t	Euro I					66422	63294	63934	64717	65653	66838	64092	68254	66841
Heavy Duty Vehicles	Diesel >32t	Euro II								64717	65653	66838	64092	68254	66841
Heavy Duty Vehicles	Diesel >32t	Euro III													66841
Buses	Urban Buses	Conventional	104096	107730	104029	103324	108850	103224	103953	103313	102311	99871	95765	93590	93770
Buses	Urban Buses	Euro I					108850	103224	103953	103313	102311	99871	95765	93590	93770
Buses	Urban Buses	Euro II								103313	102311	99871	95765	93590	93770
Buses	Urban Buses	Euro III													93770
Buses	Coaches	Conventional	93315	98696	98846	98624	108850	90022	85021	83545	82509	81021	77850	76121	76267
Buses	Coaches	Euro I					108850	90022	85021	83545	82509	81021	77850	76121	76267
Buses	Coaches	Euro II								83545	82509	81021	77850	76121	76267
Buses	Coaches	Euro III													76267
Mopeds	<50 cm ³	Conventional	2056	2137	2235	2304	2315	2211	2188	2141	2151	1794	1614	1175	1306
Mopeds	<50 cm ³	97/24/EC I											1614	1175	1306
Motorcycles	2-stroke >50 cm ³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5971	6029	5563	6228
Motorcycles	4-stroke <250 cm ³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5971	6029	5563	6228
Motorcycles	4-stroke <250 cm ³	97/24/EC											6029	5563	6228
Motorcycles	4-stroke 250 - 750 cm ³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5971	6029	5563	6228
Motorcycles	4-stroke 250 - 750 cm ³	97/24/EC											6029	5563	6228
Motorcycles	4-stroke >750 cm ³	Conventional	5815	6072	6372	6557	6584	6279	6220	6106	6168	5971	6029	5563	6228
Motorcycles	4-stroke >750 cm ³	97/24/EC											6029	5563	6228

Annex 2.B.3 Basis emission factors (g/km)

Sector	Subsector	Tech	FCu	FCr	FCh	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh
Passenger Cars	Gasoline <1,4 l	PRE ECE	67,5	55,0	62,7	216	176	201	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	58,2	44,5	48,6	186	142	155	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/02	53,2	45,2	51,2	170	144	164	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/03	53,2	45,2	51,2	170	144	164	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	ECE 15/04	51,4	43,4	47,7	164	139	153	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline <1,4 l	Euro I	51,1	38,0	43,9	164	121	140	0,038	0,018	0,021	0,053	0,016	0,035
Passenger Cars	Gasoline <1,4 l	Euro II	51,1	38,0	43,9	164	121	140	0,038	0,018	0,021	0,053	0,016	0,035
Passenger Cars	Gasoline <1,4 l	Euro III	51,1	38,0	43,9	164	121	140	0,038	0,018	0,021	0,053	0,016	0,035
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	79,3	67,0	76,4	253	214	244	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	67,8	51,1	60,3	217	163	193	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	61,7	50,7	59,7	197	162	191	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	61,7	50,7	59,7	197	162	191	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	61,7	49,1	52,1	197	157	166	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	65,9	44,0	48,0	211	141	154	0,039	0,017	0,016	0,053	0,016	0,035
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II	65,9	44,0	48,0	211	141	154	0,039	0,017	0,016	0,053	0,016	0,035
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III	65,9	44,0	48,0	211	141	154	0,039	0,017	0,016	0,053	0,016	0,035
Passenger Cars	Gasoline >2,0 l	PRE ECE	96,5	80,0	88,3	309	256	282	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	73,8	57,1	66,3	236	183	212	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/02	75,3	63,3	70,7	241	202	226	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/03	75,3	63,3	70,7	241	202	226	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	ECE 15/04	71,1	58,1	69,9	227	186	223	0,092	0,029	0,026	0,005	0,005	0,005
Passenger Cars	Gasoline >2,0 l	Euro I	79,4	46,4	51,1	254	148	163	0,040	0,017	0,010	0,053	0,016	0,035
Passenger Cars	Gasoline >2,0 l	Euro II	79,4	46,4	51,1	254	148	163	0,040	0,017	0,010	0,053	0,016	0,035
Passenger Cars	Gasoline >2,0 l	Euro III	79,4	46,4	51,1	254	148	163	0,040	0,017	0,010	0,053	0,016	0,035
Passenger Cars	Diesel <2,0 l	Euro I	52,7	42,2	47,4	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel <2,0 l	Euro II	52,7	42,2	47,4	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel <2,0 l	Euro III	52,7	42,2	47,4	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel <2,0 l	Conventional	57,5	41,2	50,1	182	130	158	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Euro I	52,7	42,2	47,4	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Euro II	52,7	42,2	47,4	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Euro III	52,7	42,2	47,4	167	133	150	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	Diesel >2,0 l	Conventional	57,5	41,2	50,1	182	130	158	0,004	0,005	0,009	0,027	0,027	0,027
Passenger Cars	LPG	Conventional	59,0	45,0	54,0	176	135	161	0,080	0,035	0,025	0,015	0,015	0,015
Passenger Cars	2-Stroke	Conventional	111,5	66,0	56,9	357	211	182	0,150	0,040	0,025	0,005	0,005	0,005

Sector	Subsector	Tech	FCu	FCr	FCh	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh
Light Duty Vehicles	Gasoline <3,5t	Conventional	82,3	59,9	56,5	263	191	181	0,150	0,040	0,025	0,006	0,006	0,006
Light Duty Vehicles	Gasoline <3,5t	Euro I	96,5	70,4	66,5	308	225	212	0,038	0,020	0,016	0,053	0,016	0,035
Light Duty Vehicles	Gasoline <3,5t	Euro II	96,5	70,4	66,5	308	225	212	0,038	0,020	0,016	0,053	0,016	0,035
Light Duty Vehicles	Gasoline <3,5t	Euro III	96,5	70,4	66,5	308	225	212	0,038	0,020	0,016	0,053	0,016	0,035
Light Duty Vehicles	Diesel <3,5 t	Conventional	76,7	65,9	72,1	242	208	228	0,005	0,005	0,005	0,017	0,017	0,017
Light Duty Vehicles	Diesel <3,5 t	Euro I	68,9	58,2	63,7	218	184	201	0,005	0,005	0,005	0,017	0,017	0,017
Light Duty Vehicles	Diesel <3,5 t	Euro II	68,9	58,2	63,7	218	184	201	0,005	0,005	0,005	0,017	0,017	0,017
Light Duty Vehicles	Diesel <3,5 t	Euro III	68,9	58,2	63,7	218	184	201	0,005	0,005	0,005	0,017	0,017	0,017
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	225,0	150,0	165,0	719	480	528	0,140	0,110	0,070	0,006	0,006	0,006
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	95,8	87,1	109,2	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I	95,8	87,1	109,2	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II	95,8	87,1	109,2	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro III	95,8	87,1	109,2	303	275	345	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	186,8	147,0	169,1	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I	186,8	147,0	169,1	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II	186,8	147,0	169,1	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro III	186,8	147,0	169,1	590	465	534	0,085	0,023	0,020	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	295,3	227,0	230,7	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	295,3	227,0	230,7	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	295,3	227,0	230,7	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	295,3	227,0	230,7	933	717	729	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Conventional	392,8	311,5	297,4	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Euro I	392,8	311,5	297,4	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Euro II	392,8	311,5	297,4	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Heavy Duty Vehicles	Diesel >32t	Euro III	392,8	311,5	297,4	1241	984	940	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Conventional	315,8	253,3	219,0	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Euro I	315,8	253,3	219,0	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Euro II	315,8	253,3	219,0	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Urban Buses	Euro III	315,8	253,3	219,0	998	800	692	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Conventional	281,8	214,6	198,3	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Euro I	281,8	214,6	198,3	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Euro II	281,8	214,6	198,3	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Buses	Coaches	Euro III	281,8	214,6	198,3	890	678	627	0,175	0,080	0,070	0,030	0,030	0,030
Mopeds	<50 cm ³	Conventional	25,0	25,0	0,0	80	80	0	0,219	0,000	0,000	0,001	0,000	0,000
Mopeds	<50 cm ³	97/24/EC I	25,0	25,0	0,0	80	80	0	0,219	0,000	0,000	0,001	0,000	0,000
Motorcycles	2-stroke >50 cm ³	Conventional	30,4	32,4	37,0	97	104	118	0,150	0,150	0,150	0,002	0,002	0,002
Motorcycles	4-stroke <250 cm ³	Conventional	23,2	26,7	35,6	74	85	114	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke <250 cm ³	97/24/EC	23,2	26,7	35,6	74	85	114	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke 250 - 750 cm ³	Conventional	28,6	28,6	34,7	92	92	111	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke 250 - 750 cm ³	97/24/EC	28,6	28,6	34,7	92	92	111	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke >750 cm ³	Conventional	37,5	34,4	38,6	120	110	123	0,200	0,200	0,200	0,002	0,002	0,002
Motorcycles	4-stroke >750 cm ³	97/24/EC	37,5	34,4	38,6	120	110	123	0,200	0,200	0,200	0,002	0,002	0,002

Sector	Subsector	Tech	COu	CO _r	CO _h	NO _{xu}	NO _{xr}	NO _{xh}	NMVOCu	NMVOCr	NMVOCh
Passenger Cars	Gasoline <1,4 l	PRE ECE	27,505	19,333	15,520	1,849	2,062	2,023	2,262	1,568	1,221
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	18,966	14,480	18,620	1,849	2,062	2,023	1,770	1,227	1,095
Passenger Cars	Gasoline <1,4 l	ECE 15/02	15,859	8,200	8,260	1,619	2,102	2,909	1,757	1,032	0,924
Passenger Cars	Gasoline <1,4 l	ECE 15/03	16,752	8,793	7,620	1,680	2,253	3,276	1,757	1,032	0,924
Passenger Cars	Gasoline <1,4 l	ECE 15/04	9,087	4,956	4,292	1,691	2,089	2,662	1,388	0,866	0,672
Passenger Cars	Gasoline <1,4 l	Euro I	1,898	0,557	3,176	0,314	0,356	0,593	0,175	0,064	0,082
Passenger Cars	Gasoline <1,4 l	Euro II	1,898	0,557	3,176	0,314	0,356	0,593	0,175	0,064	0,082
Passenger Cars	Gasoline <1,4 l	Euro III	1,898	0,557	3,176	0,314	0,356	0,593	0,175	0,064	0,082
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	27,505	19,333	15,520	2,164	2,683	3,130	2,262	1,568	1,221
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	18,966	14,480	18,620	2,164	2,683	3,130	1,770	1,227	1,095
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	15,859	8,200	8,260	1,831	2,377	3,283	1,757	1,032	0,924
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	16,752	8,793	7,620	1,917	2,580	3,472	1,757	1,032	0,924
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	9,087	4,956	4,292	2,122	2,757	3,524	1,388	0,866	0,672
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	2,583	0,937	2,402	0,323	0,349	0,530	0,138	0,066	0,067
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II	2,583	0,937	2,402	0,323	0,349	0,530	0,138	0,066	0,067
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III	2,583	0,937	2,402	0,323	0,349	0,530	0,138	0,066	0,067
Passenger Cars	Gasoline >2,0 l	PRE ECE	27,505	19,333	15,520	2,860	4,090	5,500	2,262	1,568	1,221
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	18,966	14,480	18,620	2,860	4,090	5,500	1,770	1,227	1,095
Passenger Cars	Gasoline >2,0 l	ECE 15/02	15,859	8,200	8,260	2,066	2,675	3,680	1,757	1,032	0,924
Passenger Cars	Gasoline >2,0 l	ECE 15/03	16,752	8,793	7,620	2,806	3,441	4,604	1,757	1,032	0,924
Passenger Cars	Gasoline >2,0 l	ECE 15/04	9,087	4,956	4,292	2,293	2,750	3,687	1,388	0,866	0,672
Passenger Cars	Gasoline >2,0 l	Euro I	3,838	0,814	0,976	0,427	0,406	0,521	0,232	0,147	0,105
Passenger Cars	Gasoline >2,0 l	Euro II	3,838	0,814	0,976	0,427	0,406	0,521	0,232	0,147	0,105
Passenger Cars	Gasoline >2,0 l	Euro III	3,838	0,814	0,976	0,427	0,406	0,521	0,232	0,147	0,105
Passenger Cars	Diesel <2,0 l	Euro I	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel <2,0 l	Euro II	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel <2,0 l	Euro III	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel <2,0 l	Conventional	0,651	0,472	0,384	0,520	0,433	0,528	0,141	0,081	0,052
Passenger Cars	Diesel >2,0 l	Euro I	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel >2,0 l	Euro II	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel >2,0 l	Euro III	0,432	0,109	0,165	0,679	0,488	0,619	0,073	0,028	0,020
Passenger Cars	Diesel >2,0 l	Conventional	0,651	0,472	0,384	0,824	0,723	0,861	0,141	0,081	0,052
Passenger Cars	LPG	Conventional	2,043	2,373	9,723	2,203	2,584	2,861	1,002	0,632	0,465
Passenger Cars	2-Stroke	Conventional	20,700	7,500	8,700	0,300	1,020	0,720	15,250	7,160	5,875

Sector	Subsector	Tech	COu	CO _r	CO _h	NO _{xu}	NO _{xr}	NO _{xh}	NMVOCu	NMVOCr	NMVOCh
Light Duty Vehicles	Gasoline <3,5t	Conventional	14,925	6,075	7,389	2,671	3,118	3,387	1,727	0,689	0,421
Light Duty Vehicles	Gasoline <3,5t	Euro I	4,187	0,862	1,087	0,427	0,400	0,429	0,181	0,090	0,062
Light Duty Vehicles	Gasoline <3,5t	Euro II	4,187	0,862	1,087	0,427	0,400	0,429	0,181	0,090	0,062
Light Duty Vehicles	Gasoline <3,5t	Euro III	4,187	0,862	1,087	0,427	0,400	0,429	0,181	0,090	0,062
Light Duty Vehicles	Diesel <3,5 t	Conventional	1,124	1,009	1,060	1,673	0,843	0,834	0,126	0,101	0,096
Light Duty Vehicles	Diesel <3,5 t	Euro I	0,393	0,328	0,423	1,138	0,975	1,022	0,126	0,101	0,096
Light Duty Vehicles	Diesel <3,5 t	Euro II	0,393	0,328	0,423	1,138	0,975	1,022	0,126	0,101	0,096
Light Duty Vehicles	Diesel <3,5 t	Euro III	0,393	0,328	0,423	1,138	0,975	1,022	0,126	0,101	0,096
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	70,000	55,000	55,000	4,500	7,500	7,500	6,860	5,390	3,430
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro III	3,156	2,170	1,777	3,247	2,169	2,615	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro III	3,156	2,170	1,777	6,684	4,293	4,091	1,688	1,082	0,838
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	3,156	2,170	1,777	12,561	9,060	7,610	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Conventional	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Euro I	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Euro II	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Heavy Duty Vehicles	Diesel >32t	Euro III	3,156	2,170	1,777	18,269	13,523	11,517	1,598	1,025	0,788
Buses	Urban Buses	Conventional	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Urban Buses	Euro I	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Urban Buses	Euro II	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Urban Buses	Euro III	4,687	3,204	2,494	15,288	11,731	9,853	1,138	0,696	0,479
Buses	Coaches	Conventional	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Buses	Coaches	Euro I	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Buses	Coaches	Euro II	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Buses	Coaches	Euro III	3,227	2,053	1,612	12,210	8,260	7,844	1,713	1,090	0,837
Mopeds	<50 cm ³	Conventional	15,000	15,000	0,000	0,030	0,030	0,000	8,781	9,000	0,000
Mopeds	<50 cm ³	97/24/EC I	15,000	15,000	0,000	0,030	0,030	0,000	8,781	9,000	0,000
Motorcycles	2-stroke >50 cm ³	Conventional	23,380	25,490	27,500	0,032	0,088	0,133	9,190	8,252	8,210
Motorcycles	4-stroke <250 cm ³	Conventional	22,380	26,300	38,600	0,130	0,242	0,362	1,350	0,760	1,120
Motorcycles	4-stroke <250 cm ³	97/24/EC	22,380	26,300	38,600	0,130	0,242	0,362	1,350	0,760	1,120
Motorcycles	4-stroke 250 - 750 cm ³	Conventional	20,440	21,517	25,810	0,136	0,251	0,374	1,150	0,744	0,810
Motorcycles	4-stroke 250 - 750 cm ³	97/24/EC	20,440	21,517	25,810	0,136	0,251	0,374	1,150	0,744	0,810
Motorcycles	4-stroke >750 cm ³	Conventional	14,880	18,030	24,300	0,148	0,266	0,392	2,320	1,410	0,990
Motorcycles	4-stroke >750 cm ³	97/24/EC	14,880	18,030	24,300	0,148	0,266	0,392	2,320	1,410	0,990

Sector	Subsector	Tech	NH3u	NH3r	NH3h
Passenger Cars	Gasoline <1,4 l	PRE ECE	0,002	0,002	0,002
Passenger Cars	Gasoline <1,4 l	ECE 15/00-01	0,002	0,002	0,002
Passenger Cars	Gasoline <1,4 l	ECE 15/02	0,002	0,002	0,002
Passenger Cars	Gasoline <1,4 l	ECE 15/03	0,002	0,002	0,002
Passenger Cars	Gasoline <1,4 l	ECE 15/04	0,002	0,002	0,002
Passenger Cars	Gasoline <1,4 l	Euro I	0,070	0,100	0,100
Passenger Cars	Gasoline <1,4 l	Euro II	0,070	0,100	0,100
Passenger Cars	Gasoline <1,4 l	Euro III	0,070	0,100	0,100
Passenger Cars	Gasoline 1,4 - 2,0 l	PRE ECE	0,002	0,002	0,002
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/00-01	0,002	0,002	0,002
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/02	0,002	0,002	0,002
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/03	0,002	0,002	0,002
Passenger Cars	Gasoline 1,4 - 2,0 l	ECE 15/04	0,002	0,002	0,002
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro I	0,070	0,100	0,100
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro II	0,070	0,100	0,100
Passenger Cars	Gasoline 1,4 - 2,0 l	Euro III	0,070	0,100	0,100
Passenger Cars	Gasoline >2,0 l	PRE ECE	0,002	0,002	0,002
Passenger Cars	Gasoline >2,0 l	ECE 15/00-01	0,002	0,002	0,002
Passenger Cars	Gasoline >2,0 l	ECE 15/02	0,002	0,002	0,002
Passenger Cars	Gasoline >2,0 l	ECE 15/03	0,002	0,002	0,002
Passenger Cars	Gasoline >2,0 l	ECE 15/04	0,002	0,002	0,002
Passenger Cars	Gasoline >2,0 l	Euro I	0,070	0,100	0,100
Passenger Cars	Gasoline >2,0 l	Euro II	0,070	0,100	0,100
Passenger Cars	Gasoline >2,0 l	Euro III	0,070	0,100	0,100
Passenger Cars	Diesel <2,0 l	Euro I	0,001	0,001	0,001
Passenger Cars	Diesel <2,0 l	Euro II	0,001	0,001	0,001
Passenger Cars	Diesel <2,0 l	Euro III	0,001	0,001	0,001
Passenger Cars	Diesel <2,0 l	Conventional	0,001	0,001	0,001
Passenger Cars	Diesel >2,0 l	Euro I	0,001	0,001	0,001
Passenger Cars	Diesel >2,0 l	Euro II	0,001	0,001	0,001
Passenger Cars	Diesel >2,0 l	Euro III	0,001	0,001	0,001
Passenger Cars	Diesel >2,0 l	Conventional	0,001	0,001	0,001
Passenger Cars	LPG	Conventional	0,000	0,000	0,000
Passenger Cars	2-Stroke	Conventional	0,002	0,002	0,002

Sector	Subsector	Tech	NH3u	NH3r	NH3h
Light Duty Vehicles	Gasoline <3,5t	Conventional	0,002	0,002	0,002
Light Duty Vehicles	Gasoline <3,5t	Euro I	0,070	0,100	0,100
Light Duty Vehicles	Gasoline <3,5t	Euro II	0,070	0,100	0,100
Light Duty Vehicles	Gasoline <3,5t	Euro III	0,070	0,100	0,100
Light Duty Vehicles	Diesel <3,5 t	Conventional	0,001	0,001	0,001
Light Duty Vehicles	Diesel <3,5 t	Euro I	0,001	0,001	0,001
Light Duty Vehicles	Diesel <3,5 t	Euro II	0,001	0,001	0,001
Light Duty Vehicles	Diesel <3,5 t	Euro III	0,001	0,001	0,001
Heavy Duty Vehicles	Gasoline >3,5 t	Conventional	0,002	0,002	0,002
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Conventional	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro I	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro II	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 3,5 - 7,5 t	Euro III	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Conventional	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro I	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro II	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 7,5 - 16 t	Euro III	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel >32t	Conventional	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel >32t	Euro I	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel >32t	Euro II	0,003	0,003	0,003
Heavy Duty Vehicles	Diesel >32t	Euro III	0,003	0,003	0,003
Buses	Urban Buses	Conventional	0,003	0,003	0,003
Buses	Urban Buses	Euro I	0,003	0,003	0,003
Buses	Urban Buses	Euro II	0,003	0,003	0,003
Buses	Urban Buses	Euro III	0,003	0,003	0,003
Buses	Coaches	Conventional	0,003	0,003	0,003
Buses	Coaches	Euro I	0,003	0,003	0,003
Buses	Coaches	Euro II	0,003	0,003	0,003
Buses	Coaches	Euro III	0,003	0,003	0,003
Mopeds	<50 cm ³	Conventional	0,001	0,001	0,000
Mopeds	<50 cm ³	97/24/EC I	0,001	0,001	0,000
Motorcycles	2-stroke >50 cm ³	Conventional	0,002	0,002	0,002
Motorcycles	4-stroke <250 cm ³	Conventional	0,002	0,002	0,002
Motorcycles	4-stroke <250 cm ³	97/24/EC	0,002	0,002	0,002
Motorcycles	4-stroke 250 - 750 cm ³	Conventional	0,002	0,002	0,002
Motorcycles	4-stroke 250 - 750 cm ³	97/24/EC	0,002	0,002	0,002
Motorcycles	4-stroke >750 cm ³	Conventional	0,002	0,002	0,002
Motorcycles	4-stroke >750 cm ³	97/24/EC	0,002	0,002	0,002

Annex 2.B.4 Fuel use factors (MJ/km) and emission factors (g/km)

Year	Sector	FCu (MJ)	FCr (MJ)	FCh (MJ)	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh	SO2u	SO2r	SO2h
1990	Passenger Cars	3,082	2,054	2,318	225	150	169	0,143	0,027	0,024	0,008	0,007	0,008	0,031	0,020	0,023
1991	Passenger Cars	3,121	2,036	2,297	228	149	168	0,157	0,026	0,024	0,011	0,008	0,010	0,030	0,019	0,023
1992	Passenger Cars	3,133	2,020	2,276	229	148	166	0,165	0,025	0,023	0,014	0,009	0,011	0,021	0,014	0,016
1993	Passenger Cars	3,161	2,003	2,255	231	146	165	0,181	0,025	0,023	0,017	0,009	0,013	0,012	0,008	0,009
1994	Passenger Cars	3,162	1,981	2,226	231	145	163	0,189	0,024	0,022	0,021	0,010	0,016	0,012	0,008	0,009
1995	Passenger Cars	3,213	1,960	2,202	235	143	161	0,208	0,023	0,021	0,025	0,011	0,018	0,013	0,008	0,009
1996	Passenger Cars	3,275	1,945	2,182	239	142	159	0,234	0,022	0,021	0,028	0,012	0,020	0,013	0,008	0,009
1997	Passenger Cars	3,225	1,912	2,142	236	140	157	0,215	0,020	0,019	0,032	0,013	0,023	0,013	0,008	0,009
1998	Passenger Cars	3,201	1,901	2,128	234	139	156	0,198	0,018	0,017	0,034	0,013	0,024	0,013	0,008	0,009
1999	Passenger Cars	3,218	1,886	2,110	235	138	154	0,194	0,016	0,015	0,037	0,014	0,026	0,010	0,006	0,007
2000	Passenger Cars	3,207	1,875	2,097	234	137	153	0,187	0,014	0,014	0,038	0,015	0,027	0,007	0,004	0,005
2001	Passenger Cars	3,241	1,865	2,085	237	136	152	0,188	0,013	0,013	0,040	0,015	0,028	0,007	0,004	0,005
2002	Passenger Cars	3,205	1,860	2,079	234	136	152	0,167	0,012	0,012	0,041	0,016	0,029	0,007	0,004	0,005
1990	Light Duty Vehicles	3,842	2,792	3,007	284	206	222	0,038	0,009	0,007	0,016	0,016	0,016	0,312	0,233	0,255
1991	Light Duty Vehicles	3,872	2,792	3,007	286	206	222	0,040	0,009	0,007	0,016	0,016	0,016	0,314	0,233	0,254
1992	Light Duty Vehicles	3,873	2,790	3,002	286	206	222	0,042	0,010	0,008	0,016	0,016	0,016	0,202	0,150	0,164
1993	Light Duty Vehicles	3,907	2,790	2,999	289	206	222	0,044	0,010	0,008	0,016	0,016	0,016	0,079	0,058	0,063
1994	Light Duty Vehicles	3,945	2,791	3,002	291	206	222	0,044	0,010	0,008	0,016	0,016	0,016	0,080	0,058	0,064
1995	Light Duty Vehicles	3,937	2,771	2,979	291	205	220	0,044	0,009	0,007	0,016	0,016	0,016	0,080	0,058	0,063
1996	Light Duty Vehicles	3,973	2,752	2,959	293	203	219	0,046	0,009	0,007	0,017	0,016	0,016	0,080	0,057	0,062
1997	Light Duty Vehicles	3,900	2,732	2,939	288	202	217	0,041	0,009	0,007	0,017	0,016	0,017	0,079	0,057	0,062
1998	Light Duty Vehicles	3,851	2,714	2,918	284	200	216	0,040	0,008	0,007	0,018	0,016	0,017	0,078	0,056	0,062
1999	Light Duty Vehicles	3,846	2,697	2,900	284	199	214	0,038	0,008	0,007	0,018	0,016	0,017	0,043	0,031	0,034
2000	Light Duty Vehicles	3,816	2,681	2,883	282	198	213	0,036	0,008	0,007	0,018	0,016	0,017	0,009	0,006	0,007
2001	Light Duty Vehicles	3,821	2,663	2,866	282	197	212	0,034	0,007	0,006	0,019	0,016	0,018	0,009	0,006	0,007
2002	Light Duty Vehicles	3,782	2,647	2,845	279	196	210	0,032	0,007	0,006	0,019	0,016	0,018	0,009	0,006	0,007

Year	Sector	FCu (MJ)	FCr (MJ)	FCh (MJ)	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh	SO2u	SO2r	SO2h
1990	Heavy Duty Vehicles	11,965	9,685	10,256	885	717	759	0,151	0,067	0,063	0,030	0,030	0,030	1,119	0,906	0,960
1991	Heavy Duty Vehicles	12,016	9,691	10,226	889	717	757	0,151	0,066	0,062	0,030	0,030	0,030	1,124	0,907	0,957
1992	Heavy Duty Vehicles	12,023	9,677	10,218	890	716	756	0,152	0,066	0,062	0,030	0,030	0,030	0,731	0,588	0,622
1993	Heavy Duty Vehicles	11,898	9,723	10,189	880	719	754	0,150	0,067	0,062	0,030	0,030	0,030	0,278	0,227	0,238
1994	Heavy Duty Vehicles	11,929	9,663	10,141	883	715	750	0,146	0,065	0,061	0,030	0,030	0,030	0,279	0,226	0,237
1995	Heavy Duty Vehicles	11,911	9,673	10,013	881	716	741	0,142	0,064	0,059	0,030	0,030	0,030	0,278	0,226	0,234
1996	Heavy Duty Vehicles	11,938	9,657	10,026	883	715	742	0,137	0,061	0,058	0,030	0,030	0,030	0,279	0,226	0,235
1997	Heavy Duty Vehicles	12,176	9,836	10,152	901	728	751	0,133	0,061	0,057	0,030	0,030	0,030	0,285	0,230	0,238
1998	Heavy Duty Vehicles	12,246	9,904	10,209	906	733	755	0,129	0,059	0,056	0,030	0,030	0,030	0,286	0,232	0,239
1999	Heavy Duty Vehicles	12,389	10,028	10,306	917	742	763	0,126	0,059	0,055	0,030	0,030	0,030	0,159	0,129	0,133
2000	Heavy Duty Vehicles	12,422	10,055	10,329	919	744	764	0,121	0,057	0,053	0,030	0,030	0,030	0,029	0,024	0,024
2001	Heavy Duty Vehicles	12,685	10,273	10,476	939	760	775	0,121	0,057	0,053	0,030	0,030	0,030	0,030	0,024	0,025
2002	Heavy Duty Vehicles	12,739	10,323	10,510	943	764	778	0,114	0,055	0,051	0,030	0,030	0,030	0,030	0,024	0,025
1990	2-wheelers	1,173	1,245	1,578	86	91	115	0,209	0,130	0,192	0,001	0,001	0,002	0,003	0,004	0,005
1991	2-wheelers	1,182	1,242	1,578	86	91	115	0,208	0,127	0,193	0,001	0,001	0,002	0,003	0,003	0,004
1992	2-wheelers	1,178	1,253	1,578	86	91	115	0,209	0,137	0,192	0,001	0,001	0,002	0,003	0,003	0,004
1993	2-wheelers	1,190	1,249	1,578	87	91	115	0,207	0,133	0,192	0,001	0,001	0,002	0,003	0,003	0,004
1994	2-wheelers	1,188	1,258	1,578	87	92	115	0,207	0,141	0,193	0,001	0,001	0,002	0,003	0,003	0,004
1995	2-wheelers	1,182	1,254	1,578	86	92	115	0,208	0,137	0,193	0,001	0,001	0,002	0,003	0,003	0,004
1996	2-wheelers	1,185	1,256	1,578	86	92	115	0,208	0,139	0,193	0,001	0,001	0,002	0,003	0,003	0,004
1997	2-wheelers	1,186	1,257	1,578	87	92	115	0,208	0,140	0,192	0,001	0,001	0,002	0,003	0,003	0,004
1998	2-wheelers	1,186	1,257	1,578	87	92	115	0,208	0,140	0,193	0,001	0,001	0,002	0,003	0,003	0,004
1999	2-wheelers	1,195	1,264	1,578	87	92	115	0,207	0,146	0,192	0,001	0,002	0,002	0,003	0,003	0,004
2000	2-wheelers	1,198	1,265	1,572	87	92	115	0,202	0,150	0,193	0,001	0,002	0,002	0,003	0,003	0,004
2001	2-wheelers	1,210	1,272	1,568	88	93	114	0,199	0,158	0,193	0,002	0,002	0,002	0,003	0,003	0,004
2002	2-wheelers	1,209	1,271	1,566	88	93	114	0,197	0,159	0,193	0,002	0,002	0,002	0,003	0,003	0,004

Year	Sector	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh	COu	COr	COh	NH3u	NH3r	NH3h
1990	Passenger Cars	1,791	2,142	2,763	2,527	0,929	0,787	26,382	7,625	7,554	0,004	0,004	0,004
1991	Passenger Cars	1,718	2,014	2,609	2,520	0,864	0,732	26,666	7,061	7,065	0,008	0,011	0,011
1992	Passenger Cars	1,649	1,901	2,475	2,416	0,804	0,681	25,631	6,538	6,663	0,012	0,017	0,017
1993	Passenger Cars	1,595	1,798	2,356	2,402	0,746	0,633	25,790	6,025	6,323	0,016	0,023	0,023
1994	Passenger Cars	1,488	1,624	2,149	2,200	0,654	0,555	23,663	5,243	5,741	0,023	0,032	0,032
1995	Passenger Cars	1,430	1,495	1,993	2,157	0,584	0,497	23,607	4,701	5,507	0,027	0,039	0,039
1996	Passenger Cars	1,393	1,395	1,875	2,176	0,526	0,449	24,352	4,267	5,365	0,032	0,045	0,045
1997	Passenger Cars	1,283	1,240	1,694	1,835	0,435	0,376	20,485	3,464	4,975	0,037	0,053	0,053
1998	Passenger Cars	1,197	1,129	1,549	1,619	0,382	0,329	18,258	3,057	4,674	0,040	0,057	0,057
1999	Passenger Cars	1,102	0,995	1,369	1,477	0,322	0,277	17,050	2,617	4,306	0,043	0,062	0,062
2000	Passenger Cars	1,027	0,893	1,232	1,335	0,277	0,238	15,805	2,309	4,104	0,046	0,065	0,065
2001	Passenger Cars	0,958	0,796	1,107	1,261	0,234	0,203	15,723	2,064	4,048	0,048	0,069	0,069
2002	Passenger Cars	0,907	0,749	1,041	1,119	0,213	0,185	14,127	1,911	3,885	0,048	0,068	0,068
1990	Light Duty Vehicles	1,960	1,117	1,141	0,546	0,171	0,135	5,044	1,620	1,823	0,001	0,001	0,001
1991	Light Duty Vehicles	1,979	1,118	1,143	0,568	0,172	0,135	5,242	1,622	1,826	0,001	0,001	0,001
1992	Light Duty Vehicles	1,981	1,138	1,165	0,586	0,177	0,138	5,453	1,666	1,881	0,001	0,001	0,001
1993	Light Duty Vehicles	2,004	1,147	1,176	0,620	0,179	0,140	5,785	1,688	1,908	0,001	0,001	0,001
1994	Light Duty Vehicles	2,006	1,135	1,162	0,618	0,176	0,138	5,767	1,661	1,874	0,001	0,001	0,001
1995	Light Duty Vehicles	1,945	1,115	1,144	0,605	0,170	0,134	5,616	1,553	1,758	0,002	0,002	0,002
1996	Light Duty Vehicles	1,907	1,091	1,121	0,612	0,163	0,130	5,646	1,441	1,636	0,003	0,003	0,003
1997	Light Duty Vehicles	1,811	1,064	1,094	0,543	0,154	0,125	4,957	1,317	1,500	0,003	0,004	0,004
1998	Light Duty Vehicles	1,735	1,050	1,082	0,507	0,149	0,122	4,638	1,232	1,410	0,004	0,005	0,005
1999	Light Duty Vehicles	1,688	1,031	1,064	0,487	0,142	0,118	4,399	1,137	1,307	0,004	0,006	0,006
2000	Light Duty Vehicles	1,629	1,018	1,052	0,459	0,137	0,115	4,159	1,064	1,229	0,005	0,007	0,007
2001	Light Duty Vehicles	1,593	0,998	1,032	0,442	0,130	0,111	3,903	0,964	1,119	0,005	0,007	0,007
2002	Light Duty Vehicles	1,504	0,974	1,010	0,407	0,123	0,105	3,675	0,891	1,044	0,006	0,008	0,008

Year	Sector	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh	COu	COr	COh	NH3u	NH3r	NH3h
1990	Heavy Duty Vehicles	12,379	9,166	8,502	1,527	1,007	0,792	3,707	2,411	1,857	0,003	0,003	0,003
1991	Heavy Duty Vehicles	12,423	9,174	8,460	1,532	1,007	0,792	3,687	2,414	1,862	0,003	0,003	0,003
1992	Heavy Duty Vehicles	12,435	9,145	8,456	1,532	1,011	0,792	3,700	2,413	1,866	0,003	0,003	0,003
1993	Heavy Duty Vehicles	12,272	9,212	8,433	1,538	1,008	0,792	3,707	2,420	1,872	0,003	0,003	0,003
1994	Heavy Duty Vehicles	11,939	8,820	8,092	1,475	0,986	0,775	3,588	2,323	1,814	0,003	0,003	0,003
1995	Heavy Duty Vehicles	11,490	8,527	7,722	1,439	0,964	0,761	3,411	2,225	1,757	0,003	0,003	0,003
1996	Heavy Duty Vehicles	11,123	8,241	7,455	1,396	0,938	0,745	3,260	2,156	1,704	0,003	0,003	0,003
1997	Heavy Duty Vehicles	10,798	8,035	7,206	1,331	0,903	0,721	3,070	2,044	1,632	0,003	0,003	0,003
1998	Heavy Duty Vehicles	10,374	7,747	6,917	1,283	0,876	0,700	2,941	1,970	1,586	0,003	0,003	0,003
1999	Heavy Duty Vehicles	10,019	7,524	6,684	1,234	0,849	0,680	2,795	1,885	1,535	0,003	0,003	0,003
2000	Heavy Duty Vehicles	9,598	7,227	6,410	1,193	0,826	0,663	2,686	1,824	1,500	0,003	0,003	0,003
2001	Heavy Duty Vehicles	9,526	7,161	6,252	1,148	0,803	0,645	2,625	1,770	1,467	0,003	0,003	0,003
2002	Heavy Duty Vehicles	8,842	6,686	5,823	1,071	0,757	0,611	2,455	1,671	1,398	0,003	0,003	0,003
1990	2-wheelers	0,064	0,164	0,340	6,532	4,283	2,011	16,842	19,852	27,917	0,001	0,001	0,002
1991	2-wheelers	0,068	0,161	0,340	6,249	4,379	2,011	17,073	19,753	27,917	0,001	0,001	0,002
1992	2-wheelers	0,066	0,171	0,340	6,372	4,042	2,011	16,972	20,099	27,917	0,001	0,001	0,002
1993	2-wheelers	0,071	0,167	0,340	6,033	4,187	2,011	17,250	19,950	27,917	0,001	0,001	0,002
1994	2-wheelers	0,070	0,175	0,340	6,097	3,880	2,011	17,197	20,267	27,917	0,001	0,001	0,002
1995	2-wheelers	0,068	0,171	0,340	6,271	4,023	2,011	17,055	20,119	27,917	0,001	0,001	0,002
1996	2-wheelers	0,069	0,173	0,340	6,184	3,960	2,011	17,126	20,184	27,917	0,001	0,001	0,002
1997	2-wheelers	0,069	0,174	0,340	6,153	3,931	2,011	17,152	20,214	27,917	0,001	0,001	0,002
1998	2-wheelers	0,069	0,174	0,340	6,145	3,924	2,011	17,158	20,221	27,917	0,001	0,001	0,002
1999	2-wheelers	0,073	0,180	0,340	5,895	3,704	2,011	17,363	20,448	27,917	0,001	0,002	0,002
2000	2-wheelers	0,077	0,186	0,342	5,549	3,417	1,980	17,021	20,004	27,414	0,001	0,002	0,002
2001	2-wheelers	0,084	0,196	0,345	5,073	3,064	1,933	16,990	19,880	26,948	0,002	0,002	0,002
2002	2-wheelers	0,086	0,198	0,348	4,875	2,899	1,877	16,784	19,690	26,937	0,002	0,002	0,002

Annex 2.B.5 Fuel use (GJ) and emissions (tons) per vehicle category and as totals

Year	Sector	FC (GJ)	CO2	CH4	N2O	SO2	NOx	NMVOG	CO	NH3
1990	Passenger Cars	69608254	5087105	2079	214	687	57332	71086	427990	110
1991	Passenger Cars	73816548	5394444	2334	280	709	57836	71423	443231	281
1992	Passenger Cars	77348442	5652313	2467	347	526	58614	70458	434504	464
1993	Passenger Cars	79376296	5800343	2719	407	307	57397	68127	438753	639
1994	Passenger Cars	82258416	6010935	2876	511	318	55069	63930	410796	940
1995	Passenger Cars	83450719	6098344	3038	587	329	52947	59334	396227	1178
1996	Passenger Cars	84286667	6159584	3288	651	335	50991	55425	394948	1374
1997	Passenger Cars	86483699	6320175	3139	761	344	48026	49139	347652	1694
1998	Passenger Cars	88522087	6469358	2975	833	356	45484	44559	320454	1894
1999	Passenger Cars	89167631	6517606	2903	896	292	41094	39478	297453	2054
2000	Passenger Cars	88595697	6476748	2769	938	203	37329	32628	274087	2159
2001	Passenger Cars	88434195	6465693	2751	981	202	33750	28933	267408	2273
2002	Passenger Cars	89468068	6542849	2503	1013	205	32435	26637	247451	2310
1990	Light Duty Vehicles	23115080	1707662	149	112	1906	10428	3091	21687	8
1991	Light Duty Vehicles	23957024	1769846	159	115	1974	10830	3248	23002	8
1992	Light Duty Vehicles	23479719	1734385	160	112	1248	10678	3305	23176	8
1993	Light Duty Vehicles	23450531	1732124	167	112	481	10731	3389	24109	8
1994	Light Duty Vehicles	24974574	1844855	167	120	516	11211	3480	24458	9
1995	Light Duty Vehicles	24505598	1810121	164	121	504	10790	3295	23171	16
1996	Light Duty Vehicles	25221292	1862973	170	127	519	10851	3235	23111	24
1997	Light Duty Vehicles	25453281	1880204	159	132	526	10671	2991	21012	31
1998	Light Duty Vehicles	24752576	1828342	151	132	509	10197	2750	19304	37
1999	Light Duty Vehicles	25068712	1851738	146	136	287	10138	2630	18457	43
2000	Light Duty Vehicles	25282013	1867429	141	139	59	10060	2415	17666	49
2001	Light Duty Vehicles	25520318	1885224	135	143	60	9976	2282	16600	52
2002	Light Duty Vehicles	26775092	1977649	134	153	62	10146	2239	16450	65

Year	Sector	FC (GJ)	CO2	CH4	N2O	SO2	NOx	NMVOC	CO	NH3
1990	Heavy Duty Vehicles	33933165	2511006	298	96	3174	32300	3614	8675	9
1991	Heavy Duty Vehicles	34424256	2547345	301	98	3220	32781	3671	8792	9
1992	Heavy Duty Vehicles	33656314	2490515	295	96	2046	32044	3600	8622	9
1993	Heavy Duty Vehicles	33365322	2468980	292	95	780	31668	3560	8537	9
1994	Heavy Duty Vehicles	35732489	2644149	295	103	836	32553	3654	8705	10
1995	Heavy Duty Vehicles	36314627	2687228	293	105	849	31921	3638	8483	10
1996	Heavy Duty Vehicles	37071644	2743246	290	107	867	31494	3613	8346	10
1997	Heavy Duty Vehicles	37390997	2766891	282	106	875	30309	3433	7827	10
1998	Heavy Duty Vehicles	38573775	2854414	281	109	902	29875	3403	7719	10
1999	Heavy Duty Vehicles	39439479	2918480	277	110	508	29210	3320	7452	10
2000	Heavy Duty Vehicles	38127592	2821398	259	106	89	27017	3110	6950	10
2001	Heavy Duty Vehicles	38708387	2864376	257	106	91	26531	2991	6725	10
2002	Heavy Duty Vehicles	37849451	2800810	237	103	89	24060	2737	6175	10
1990	2-wheelers	618260	45133	93	1	2	59	2984	9392	1
1991	2-wheelers	647664	47280	98	1	2	59	3092	9806	1
1992	2-wheelers	673027	49131	101	1	2	65	3136	10261	1
1993	2-wheelers	693419	50620	104	1	2	65	3175	10540	1
1994	2-wheelers	704846	51454	106	1	2	70	3139	10790	1
1995	2-wheelers	714032	52124	107	1	2	73	3210	10957	1
1996	2-wheelers	755112	55123	113	1	2	74	3420	11533	1
1997	2-wheelers	803775	58676	121	1	2	79	3632	12287	1
1998	2-wheelers	866101	63225	130	1	2	86	3905	13242	1
1999	2-wheelers	854128	62351	128	1	2	88	3655	13144	1
2000	2-wheelers	879655	64215	130	1	2	95	3472	13267	1
2001	2-wheelers	790185	57683	116	1	2	91	2820	11803	1
2002	2-wheelers	933578	68151	136	1	2	110	3202	13836	1
1990	Total	127274759	9350906	2620	423	5769	100118	80774	467745	128
1991	Total	132845492	9758915	2891	494	5905	101506	81436	484830	299
1992	Total	135157502	9926345	3024	556	3822	101402	80499	476563	482
1993	Total	136885568	10052066	3283	615	1571	99862	78250	481940	656
1994	Total	143670326	10551393	3444	735	1671	98904	74203	454750	959
1995	Total	144984976	10647817	3602	813	1684	95730	69476	438837	1204
1996	Total	147334715	10820927	3862	886	1723	93410	65693	437939	1408
1997	Total	150131752	11025946	3700	1000	1746	89086	59195	388778	1735
1998	Total	152714538	11215339	3536	1074	1769	85642	54617	360719	1943
1999	Total	154529949	11350175	3454	1143	1089	80531	49083	336505	2108
2000	Total	152884957	11229790	3299	1185	353	74501	41624	311969	2219
2001	Total	153453085	11272977	3259	1230	355	70348	37026	302537	2336
2002	Total	155026190	11389459	3010	1270	358	66749	34814	283912	2386

Annex 2.B.6 Emission factors and total emissions for 1990 and 2002 in CollectER format

Year	SNAP ID	Category	Fuel type	Mode	Fuel [GJ]	SO2 [g/GJ]	NOx [g/GJ]	NM VOC [g/GJ]	CH4 [g/GJ]	CO [g/GJ]	CO2 [kg/GJ]	NH3 [g/GJ]	N2O [g/GJ]	TSP [g/GJ]
1990	70101	Passenger cars	Diesel	Highway driving	716028	93,68	253,78	24,51	4,30	179,70	74	12,62	0,47	79,48
1990	70101	Passenger cars	Gasoline 2-stroke	Highway driving	1512	2,97	288,90	2357,34	10,03	3490,86	73	2,01	0,80	48,15
1990	70101	Passenger cars	Gasoline conventional	Highway driving	28730	2,25	1311,04	369,53	11,10	3612,94	73	2,13	0,85	12,33
1990	70101	Passenger cars	Gasoline catalyst	Highway driving	7394952	1,95	190,36	35,59	7,47	943,80	73	16,76	47,89	0,34
1990	70101	Passenger cars	LPG	Highway driving	183522	0,00	1151,70	187,09	10,06	3914,25	65	6,04	0,00	10,06
1990	70102	Passenger cars	Diesel	Rural driving	2039148	93,68	253,33	46,16	2,75	268,08	74	15,34	0,57	75,13
1990	70102	Passenger cars	Gasoline 2-stroke	Rural driving	4361	2,97	352,84	2476,82	13,84	2594,44	73	1,73	0,69	41,51
1990	70102	Passenger cars	Gasoline conventional	Rural driving	115355	2,24	1139,51	488,47	13,94	4110,62	73	2,40	0,96	14,24
1990	70102	Passenger cars	Gasoline catalyst	Rural driving	22799974	1,95	143,35	42,55	9,25	370,07	73	8,53	53,34	0,37
1990	70102	Passenger cars	LPG	Rural driving	570376	0,00	1248,46	305,18	16,91	1146,38	65	7,25	0,00	14,49
1990	70103	Passenger cars	Diesel	Urban driving	3046172	93,68	208,31	85,82	2,37	310,69	74	9,59	0,36	117,16
1990	70103	Passenger cars	Gasoline 2-stroke	Urban driving	6471	2,97	61,43	3122,63	30,71	4238,59	73	1,02	0,41	24,57
1990	70103	Passenger cars	Gasoline conventional	Urban driving	181888	2,25	633,42	894,14	50,15	9534,02	73	1,62	0,65	13,98
1990	70103	Passenger cars	Gasoline catalyst	Urban driving	31532452	1,95	163,59	299,31	68,50	3772,36	73	15,24	20,13	0,32
1990	70103	Passenger cars	LPG	Urban driving	987315	0,00	642,80	421,67	33,67	1249,98	65	4,56	0,00	12,16
1990	70201	Light duty vehicles	Diesel	Highway driving	2313348	93,68	270,67	31,16	1,62	344,14	74	5,52	0,32	104,48
1990	70201	Light duty vehicles	Gasoline conventional	Highway driving	254498	2,97	1369,26	170,29	10,11	2987,40	73	2,43	0,81	16,17
1990	70201	Light duty vehicles	Gasoline catalyst	Highway driving	0	0,00	0,00	0,00	0,00	0,00	73	0,00	0,00	0,00
1990	70202	Light duty vehicles	Diesel	Rural driving	8280955	93,68	299,25	35,71	1,78	358,42	74	6,04	0,36	107,73
1990	70202	Light duty vehicles	Gasoline conventional	Rural driving	1057020	2,97	1188,86	262,59	15,25	2316,18	73	2,29	0,76	15,25
1990	70202	Light duty vehicles	Gasoline catalyst	Rural driving	0	0,00	0,00	0,00	0,00	0,00	73	0,00	0,00	0,00
1990	70203	Light duty vehicles	Diesel	Urban driving	9666704	93,68	489,77	57,53	2,29	403,83	74	4,51	0,27	126,74
1990	70203	Light duty vehicles	Gasoline conventional	Urban driving	1542555	2,97	638,11	671,68	58,35	7008,46	73	1,37	0,46	9,12
1990	70203	Light duty vehicles	Gasoline catalyst	Urban driving	0	0,00	0,00	0,00	0,00	0,00	73	0,00	0,00	0,00
1990	70301	Heavy duty vehicles	Diesel	Highway driving	7558528	93,68	828,80	76,83	6,11	174,57	74	2,92	0,28	45,30
1990	70301	Heavy duty vehicles	Gasoline	Highway driving	6630	2,97	1037,77	474,61	9,69	7610,35	73	0,83	0,28	55,35
1990	70302	Heavy duty vehicles	Diesel	Rural driving	14175012	93,68	946,10	102,99	6,86	237,86	74	3,10	0,27	54,49
1990	70302	Heavy duty vehicles	Gasoline	Rural driving	19287	2,97	1141,55	820,40	16,74	8371,39	73	0,91	0,30	60,88
1990	70303	Heavy duty vehicles	Diesel	Urban driving	12151405	93,68	1035,68	126,62	12,65	297,36	74	2,51	0,25	61,38
1990	70303	Heavy duty vehicles	Gasoline	Urban driving	22301	2,97	456,62	696,09	14,21	7102,99	73	0,61	0,20	40,59
1990	704	Mopeds	Gasoline		270104	2,97	27,40	8057,18	162,00	13698,63	73	0,74	0,74	109,59
1990	70501	Motorcycles	Gasoline	Highway driving	68816	2,97	215,21	1274,28	121,98	17689,89	73	1,27	1,27	32,95
1990	70502	Motorcycles	Gasoline	Rural driving	128454	2,97	173,17	1528,62	146,07	16834,36	73	1,52	1,52	39,46
1990	70503	Motorcycles	Gasoline	Urban driving	150886	2,97	93,28	2018,58	147,26	15322,43	73	1,53	1,53	39,78

Year	SNAPID	Category	Fuel type	Mode	Fuel [GJ]	SO2 [g/GJ]	NOx [g/GJ]	NMVOG [g/GJ]	CH4 [g/GJ]	CO [g/GJ]	CO2 [kg/GJ]	NH3 [g/GJ]	N2O [g/GJ]	TSP [g/GJ]
1990	801	Military	Diesel		146162	93,68	778,10	83,81	6,66	250,19	74	4,04	0,28	69,87
1990	801	Military	Jet fuel	< 3000 ft	986	4,60	250,57	24,94	2,65	229,89	72	2,30		
1990	801	Military	Jet fuel	> 3000 ft	4913	4,60	250,57	24,94	2,65	229,89	72	2,30		
1990	801	Military	Gasoline		149678	2,28	871,06	1129,29	33,78	6687,29	73	2,24	1,63	
1990	801	Military	Aviation gasoline		1347105	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	
1990	802	Railways	Diesel		4010007	93,68	1225,13	79,94	3,07	223,21	74	2,04	0,20	50,26
1990	802	Railways	Kerosene		70	5,00	50,00	3,00	7,00	20,00	72	2,00		
1990	802	Railways	Gasoline		0	2,28	871,06	1129,29	33,78	6687,29	73	2,24	1,63	
1990	803	Inland waterways	Diesel		544970	93,68	1249,33	270,13	4,35	595,20	74	3,05	0,17	164,83
1990	803	Inland waterways	Gasoline		371237	2,28	64,34	10809,58	108,10	18485,08	73	0,52	0,10	
1990	80402	National sea traffic	Residual oil		3559806	1466,99	1393,64	56,92	1,76	180,93	78	4,89		139,36
1990	80402	National sea traffic	Diesel		2782388	93,68	1334,89	54,52	1,69	173,30	74	4,68		42,15
1990	80402	National sea traffic	Kerosene		452	4,60	50,00	3,00	7,00	20,00	72	2,00		
1990	80402	National sea traffic	LPG		1794		1249,00	384,90	20,30	443,00	65	2,00		
1990	80403	Fishing	Residual oil		285426	1466,99	1393,64	56,92	1,76	180,93	78	4,89		139,36
1990	80403	Fishing	Diesel		10051143	93,68	1334,89	54,52	1,69	173,30	74	4,68		42,15
1990	80403	Fishing	Kerosene		25787	4,60	50,00	3,00	7,00	20,00	72	2,00		
1990	80403	Fishing	Gasoline		9001	2,28	64,34	10809,58	108,10	18485,08	73	0,52	0,10	
1990	80403	Fishing	LPG		42320		1249,00	384,90	20,30	443,00	65	2,00		
1990	80404	International sea traffic	Residual oil		28543368	1711,49	2127,14	56,92	1,76	180,93	78	4,89		200,49
1990	80404	International sea traffic	Diesel		11632674	468,38	2037,47	54,52	1,69	173,30	74	4,68		42,15
1990	80501	Air traffic, other airports	Jet fuel	Dom. < 3000 ft	378795	2,30	310,41	16,54	1,76	100,94	72	6,35		
1990	80501	Air traffic, other airports	Aviation gasoline		104947	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	
1990	80502	Air traffic, other airports	Jet fuel	Int. < 3000 ft	136077	2,30	306,48	18,38	1,95	177,11	72	6,90		
1990	80502	Air traffic, other airports	Aviation gasoline		30660	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	
1990	80503	Air traffic, other airports	Jet fuel	Dom. > 3000 ft	910427	2,30	330,34	9,28	0,99	93,07	72	2,30		
1990	80504	Air traffic, other airports	Jet fuel	Int. > 3000 ft	1612988	2,30	242,81	6,20	0,66	54,25	72	2,30		
1990	806	Agriculture	Diesel		17292498	93,68	1273,14	190,59	4,43	424,13	74	3,10	0,18	128,88
1990	806	Agriculture	Gasoline		520115	2,28	244,33	1022,05	51,10	24741,09	73	1,80	0,12	
1990	807	Forestry	Diesel		5001	93,68	1255,79	238,29	4,37	526,70	74	3,06	0,17	150,34
1990	807	Forestry	Gasoline		60375	2,28	48,66	18095,47	180,95	33391,26	73	0,48	0,10	
1990	808	Industry	Diesel		9277501	93,68	1286,85	174,83	4,48	390,74	74	3,14	0,18	122,38
1990	808	Industry	Gasoline		142938	2,28	216,67	3096,74	119,76	44820,30	73	1,63	0,11	
1990	808	Industry	LPG		1251154	0,00	621,12	838,51	62,11	931,68	65	3,11	0,19	12,44
1990	809	Household and gardening	Gasoline		1187573	2,28	213,71	3726,00	116,17	42616,59	73	1,61	0,11	
1990	80501	Air traffic, Copenhagen airport	Jet fuel	Dom. < 3000 ft	441215	2,30	280,41	23,40	2,49	144,24	72	5,03		
1990	80501	Air traffic, Copenhagen airport	Aviation gasoline		8642	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	
1990	80502	Air traffic, Copenhagen airport	Jet fuel	Int. < 3000 ft	2037255	2,30	326,94	34,43	3,66	159,73	72	3,76		
1990	80502	Air traffic, Copenhagen airport	Aviation gasoline		5612	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	
1990	80503	Air traffic, Copenhagen airport	Jet fuel	Dom. > 3000 ft	1160709	2,30	315,28	8,51	0,90	79,30	72	2,30		
1990	80504	Air traffic, Copenhagen airport	Jet fuel	Int. > 3000 ft	20653862	2,30	291,18	8,79	0,93	36,07	72	2,30		

Year	SNAP ID	Category	Fuel type	Mode	Fuel [GJ]	SO2 [g/GJ]	NOx [g/GJ]	NMVOC [g/GJ]	CH4 [g/GJ]	CO [g/GJ]	CO2 [kg/GJ]	NH3 [g/GJ]	N2O [g/GJ]	TSP [g/GJ]	PM10 [g/GJ]	PM2.5 [g/GJ]
2002	70101	Passenger cars	Diesel	Highway driving	2104778	2,34	284,55	12,88	4,39	102,66	74	13,18	0,49	43,63	43,63	43,63
2002	70101	Passenger cars	Gasoline 2-stroke	Highway driving	116	2,28	288,90	2357,34	10,03	3490,86	73	2,01	0,80	48,15	48,15	48,15
2002	70101	Passenger cars	Gasoline conventional	Highway driving	834	2,28	1368,76	331,97	11,45	2545,90	73	2,20	0,88	10,28	10,28	10,28
2002	70101	Passenger cars	Gasoline catalyst	Highway driving	2889850	2,28	293,17	33,94	4,44	2045,65	73	17,19	49,12	0,34	0,34	0,34
2002	70101	Passenger cars	LPG	Highway driving	9902730	0,00	1151,70	187,09	10,06	3914,25	65	6,04	0,00	10,06	10,06	10,06
2002	70102	Passenger cars	Diesel	Rural driving	4463829	2,34	258,40	21,41	2,64	102,77	74	15,05	0,56	29,76	29,76	29,76
2002	70102	Passenger cars	Gasoline 2-stroke	Rural driving	235	2,28	352,84	2476,82	13,84	2594,44	73	1,73	0,69	41,51	41,51	41,51
2002	70102	Passenger cars	Gasoline conventional	Rural driving	2342	2,28	1163,54	450,58	14,17	3096,23	73	2,44	0,97	11,45	11,45	11,45
2002	70102	Passenger cars	Gasoline catalyst	Rural driving	6326306	2,28	208,85	34,99	4,95	610,36	73	8,78	54,85	0,38	0,38	0,38
2002	70102	Passenger cars	LPG	Rural driving	21472312	0,00	1248,46	305,18	16,91	1146,38	65	7,25	0,00	14,49	14,49	14,49
2002	70103	Passenger cars	Diesel	Urban driving	5116462	2,34	261,74	59,77	2,68	251,13	74	9,99	0,37	57,36	57,36	57,36
2002	70103	Passenger cars	Gasoline 2-stroke	Urban driving	295	2,28	61,43	3122,63	30,71	4238,59	73	1,02	0,41	24,57	24,57	24,57
2002	70103	Passenger cars	Gasoline conventional	Urban driving	3011	2,28	632,96	881,29	53,98	8271,10	73	1,59	0,64	11,08	11,08	11,08
2002	70103	Passenger cars	Gasoline catalyst	Urban driving	7353822	2,28	200,55	267,47	60,27	4168,00	73	15,92	21,03	0,33	0,33	0,33
2002	70103	Passenger cars	LPG	Urban driving	29831080	0,00	615,43	433,89	34,65	1341,58	65	4,39	0,00	11,72	11,72	11,72
2002	70201	Light duty vehicles	Diesel	Highway driving	3295673	2,34	326,74	32,40	1,69	232,00	74	5,95	0,35	62,06	62,06	62,06
2002	70201	Light duty vehicles	Gasoline conventional	Highway driving	147550	2,28	1369,26	170,29	10,11	2987,40	73	2,43	0,81	16,17	16,17	16,17
2002	70201	Light duty vehicles	Gasoline catalyst	Highway driving	273957	2,28	148,94	19,36	3,12	579,23	73	12,03	34,36	0,24	0,24	0,24
2002	70202	Light duty vehicles	Diesel	Rural driving	10040568	2,34	348,04	37,13	1,85	224,61	74	6,51	0,38	59,68	59,68	59,68
2002	70202	Light duty vehicles	Gasoline conventional	Rural driving	521554	2,28	1188,86	262,59	15,25	2316,18	73	2,29	0,76	15,25	15,25	15,25
2002	70202	Light duty vehicles	Gasoline catalyst	Rural driving	967300	2,28	131,04	26,25	3,57	433,64	73	5,19	32,44	0,23	0,23	0,23
2002	70203	Light duty vehicles	Diesel	Urban driving	9731291	2,34	413,46	63,87	2,54	264,22	74	4,70	0,28	76,47	76,47	76,47
2002	70203	Light duty vehicles	Gasoline conventional	Urban driving	630891	2,28	623,61	702,94	61,07	7468,02	73	1,32	0,44	8,83	8,83	8,83
2002	70203	Light duty vehicles	Gasoline catalyst	Urban driving	1167027	2,28	143,89	150,84	28,37	3359,41	73	9,97	13,17	0,17	0,17	0,17
2002	70301	Heavy duty vehicles	Diesel	Highway driving	10490395	2,34	553,54	57,73	4,83	126,21	74	2,85	0,28	25,57	25,57	25,57
2002	70301	Heavy duty vehicles	Gasoline	Highway driving	9584	2,28	1037,77	474,61	9,69	7610,35	73	0,83	0,28	55,35	55,35	55,35
2002	70302	Heavy duty vehicles	Diesel	Rural driving	15941119	2,34	647,07	72,38	5,27	151,80	74	2,90	0,26	30,88	30,88	30,88
2002	70302	Heavy duty vehicles	Gasoline	Rural driving	19501	2,28	1141,55	820,40	16,74	8371,39	73	0,91	0,30	60,88	60,88	60,88
2002	70303	Heavy duty vehicles	Diesel	Urban driving	11368635	2,34	694,55	82,97	8,91	180,63	74	2,35	0,24	35,51	35,51	35,51
2002	70303	Heavy duty vehicles	Gasoline	Urban driving	19915	2,28	456,62	696,09	14,21	7102,99	73	0,61	0,20	40,59	40,59	40,59
2002	704	Mopeds	Gasoline		244496	2,28	26,64	7308,88	149,01	12510,68	73	0,74	0,74	109,59	109,59	109,59
2002	70501	Motorcycles	Gasoline	Highway driving	112965	2,28	221,92	1198,73	123,25	17201,47	73	1,28	1,28	32,70	32,70	32,70
2002	70502	Motorcycles	Gasoline	Rural driving	262763	2,28	179,41	1444,32	147,60	16168,61	73	1,53	1,53	39,16	39,16	39,16
2002	70503	Motorcycles	Gasoline	Urban driving	313351	2,28	98,28	1919,76	149,16	14632,30	73	1,55	1,55	39,57	39,57	39,57

Year	SNAPID	Category	Fuel type	Mode	Fuel [GJ]	SO2 [g/GJ]	NOx [g/GJ]	NM VOC [g/GJ]	CH4 [g/GJ]	CO [g/GJ]	CO2 [kg/GJ]	NH3 [g/GJ]	N2O [g/GJ]	TSP [g/GJ]	PM10 [g/GJ]	PM2.5 [g/GJ]
2002	801	Military	Diesel		434684	2,34	492,12	58,33	4,41	183,98	74	5,23	0,31	44,52	44,52	44,52
2002	801	Military	Jet fuel	< 3000 ft	66	4,60	250,57	24,94	2,65	229,89	72	2,30	0,00	1,16	1,16	1,16
2002	801	Military	Jet fuel	> 3000 ft	8272	4,60	250,57	24,94	2,65	229,89	72	2,30	0,00	1,16	1,16	1,16
2002	801	Military	Gasoline		77781	2,28	376,42	370,81	32,62	3280,61	73	10,80	28,65	4,43	4,43	4,43
2002	801	Military	Aviation gasoline		700033	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	10,00	10,00	10,00
2002	802	Railways	Diesel		2844583	2,34	1190,04	86,91	3,34	223,26	74	2,04	0,20	43,93	43,93	43,93
2002	802	Railways	Kerosene		0	5,00	50,00	3,00	7,00	20,00	72	2,00	0,00	121,95	115,85	110,06
2002	802	Railways	Gasoline		0	2,28	397,09	400,36	35,56	3516,78	73	10,55	27,87	4,43	4,43	4,43
2002	803	Inland waterways	Diesel		1001571	23,42	1249,33	270,13	4,35	595,20	74	3,05	0,17	164,83	156,59	148,76
2002	803	Inland waterways	Gasoline		902453	2,28	64,34	10809,58	108,10	18485,08	73	0,52	0,10	23,25	23,25	23,25
2002	80402	National sea traffic	Residual oil		2064248	810,26	1393,60	56,90	1,76	180,90	78	4,90		139,40	132,43	125,81
2002	80402	National sea traffic	Diesel		3421700	93,68	1334,90	54,50	1,69	173,30	74	4,70	0,00	42,15	40,04	38,04
2002	80402	National sea traffic	Kerosene		696	4,60	50,00	3,00	7,00	20,00	72	2,00	2,00	97,56	92,68	88,05
2002	80402	National sea traffic	LPG		0	0,00	1249,00	384,90	20,30	443,00	65	2,00	0,00	12,44	12,44	12,44
2002	80403	Fishing	Residual oil		3821	810,26	1393,60	56,90	1,76	180,90	78	4,90		139,40	132,43	125,81
2002	80403	Fishing	Diesel		8244841	93,68	1334,90	54,50	1,69	173,30	74	4,70	0,00	42,15	40,04	38,04
2002	80403	Fishing	Kerosene		592	4,60	50,00	3,00	7,00	20,00	72	2,00		97,56	92,68	88,05
2002	80403	Fishing	Gasoline		3351	2,28	64,34	10809,60	108,10	18485,10	73	0,52	0,10	23,25	23,25	23,25
2002	80403	Fishing	LPG		20976	0,00	1249,00	384,90	20,30	443,00	65	2,00	0,00	12,44	12,44	12,44
2002	80404	International sea traffic	Residual oil		17546654	1681,38	2127,10	56,90	1,76	180,90	78	4,90		200,50	190,48	180,95
2002	80404	International sea traffic	Diesel		21579480	468,38	2037,50	54,50	1,69	173,30	74	4,70		42,15	40,04	38,04
2002	80501	Air traffic, other airports	Jet fuel	Dom. < 3000 ft	217050	2,30	310,16	22,58	2,40	132,06	72	10,87		1,16	1,16	1,16
2002	80501	Air traffic, other airports	Aviation gasoline		97530	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	10,00	10,00	10,00
2002	80502	Air traffic, other airports	Jet fuel	Int. < 3000 ft	233379	2,30	300,42	20,98	2,23	189,16	72	7,69		1,16	1,16	1,16
2002	80502	Air traffic, other airports	Aviation gasoline		7200	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	10,00	10,00	10,00
2002	80503	Air traffic, other airports	Jet fuel	Dom. > 3000 ft	520189	2,30	312,37	14,16	1,50	108,33	72	2,30		1,16	1,16	1,16
2002	80504	Air traffic, other airports	Jet fuel	Int. > 3000 ft	2205821	2,30	242,33	8,27	0,88	65,26	72	2,30		1,16	1,16	1,16
2002	806	Agriculture	Diesel		15994341	23,42	1240,45	186,29	4,43	424,08	74	3,10	0,18	124,99	118,74	112,87
2002	806	Agriculture	Gasoline		489194	2,28	244,33	1022,05	51,10	24741,09	73	1,80	0,12	23,25	23,25	23,25
2002	807	Forestry	Diesel		4625	23,42	1088,93	206,16	4,37	512,98	74	3,06	0,17	126,23	119,92	113,98
2002	807	Forestry	Gasoline		56786	2,28	48,66	18095,47	180,95	33391,26	73	0,48	0,10	23,25	23,25	23,25
2002	808	Industry	Diesel		8581034	23,42	1131,35	160,73	4,48	389,65	74	3,14	0,18	105,35	100,08	95,13
2002	808	Industry	Gasoline		134440	2,28	216,67	3096,74	119,76	44820,30	73	1,63	0,11	23,25	23,25	23,25
2002	808	Industry	LPG		1498955	0,00	621,12	838,51	62,11	931,68	65	3,11	0,19	12,44	12,44	12,44
2002	809	Household and gardening	Gasoline		1116970	2,28	213,71	3726,00	116,17	42616,59	73	1,61	0,11	23,25	23,25	23,25
2002	80501	Air traffic, Copenhagen airport	Jet fuel	Dom. < 3000 ft	272988	2,30	294,64	26,14	2,78	159,41	72	7,22		1,16	1,16	1,16
2002	80501	Air traffic, Copenhagen airport	Aviation gasoline		791	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	10,00	10,00	10,00
2002	80502	Air traffic, Copenhagen airport	Jet fuel	Int. < 3000 ft	2821218	2,30	330,82	35,49	3,77	191,08	72	3,96	0,00	1,16	1,16	1,16
2002	80502	Air traffic, Copenhagen airport	Aviation gasoline		1145	4,57	859,00	1242,60	21,90	6972,00	73	2,00	1,60	10,00	10,00	10,00
2002	80503	Air traffic, Copenhagen airport	Jet fuel	Dom. > 3000 ft	916659	2,30	305,20	12,24	1,30	59,71	72	2,30	0,00	1,16	1,16	1,16
2002	80504	Air traffic, Copenhagen airport	Jet fuel	Int. > 3000 ft	23250413	2,30	308,23	10,43	1,11	35,22	72	2,30	0,00	1,16	1,16	1,16

Year	Category	Mode	SNAP ID	SO2	NOx	NMVOC	CH4	CO	CO2	NH3	N2O	TSP
				[tons]	[tons]	[tons]	[tons]	[tons]	[ktons]	[tons]	[tons]	[tons]
1990	Passenger cars	Highway driving	70101	84	9922	2825	87	27126	608	28	15	150
1990	Passenger cars	Rural driving	70102	244	26625	11543	330	94784	1866	91	54	483
1990	Passenger cars	Urban driving	70103	359	20785	29322	1662	306081	2613	95	41	803
1990	Light duty vehicles	Highway driving	70201	217	975	115	6	1556	190	13	1	246
1990	Light duty vehicles	Rural driving	70202	779	3735	573	31	5416	690	52	4	908
1990	Light duty vehicles	Urban driving	70203	910	5719	1592	112	14715	828	46	3	1239
1990	Heavy duty vehicles	Highway driving	70301	708	6271	584	46	1370	560	22	2	343
1990	Heavy duty vehicles	Rural driving	70302	1328	13433	1476	98	3533	1050	44	4	774
1990	Heavy duty vehicles	Urban driving	70303	1138	12595	1554	154	3772	901	30	3	747
1990	Mopeds		704	1	7	2176	44	3700	20	0	0	30
1990	Motorcycles	Highway driving	70501	0	15	88	8	1217	5	0	0	2
1990	Motorcycles	Rural driving	70502	0	22	196	19	2162	9	0	0	5
1990	Motorcycles	Urban driving	70503	0	14	305	22	2312	11	0	0	6
1990	Evaporation		706	0	0	28425	0	0	0	0	0	0
1990	Military		801	21	494	57	5	422	119	4	0	10
1990	Railways		802	376	4913	321	12	895	297	8	1	202
1990	Inland waterways		803	52	705	4160	43	7187	67	2	0	90
1990	National sea traffic		80402	5483	8678	355	11	1127	484	30	0	613
1990	Fishing		80403	1360	13870	678	19	1979	771	49	0	463
1990	International sea traffic		80404	54300	84417	2259	70	7180	3087	194	0	6213
1990	Air traffic, Dom. < 3000 ft.		80501	2	339	158	4	894	67	5	0	0
1990	Air traffic, Int. < 3000 ft.		80502	5	739	118	9	602	159	9	0	0
1990	Air traffic, Dom. > 3000 ft.		80503	5	667	18	2	177	149	5	0	0
1990	Air traffic, Int. > 3000 ft.		80504	51	6406	192	20	832	1603	51	0	0
1990	Agriculture		806	1621	22143	3827	103	20203	1318	55	3	2229
1990	Forestry		807	1	9	1094	11	2019	5	0	0	1
1990	Industry		808	869	12747	3114	136	11197	778	33	2	1151
1990	Household and gardening		809	3	254	4425	138	50610	87	2	0	0

Year	Category	Mode	SNAP ID	SO2	NOx	NMVOC	CH4	CO	CO2	NH3	N2O	TSP	PM10	PM2.5
				[tons]	[tons]	[tons]	[tons]	[tons]	[ktons]	[tons]	[tons]	[tons]	[tons]	[tons]
2002	Passenger cars	Highway driving	70101	34	7458	1325	86	27834	1090	204	490	125	125	125
2002	Passenger cars	Rural driving	70102	74	13000	3703	208	33159	2360	271	1186	214	214	214
2002	Passenger cars	Urban driving	70103	97	11977	14775	2209	186458	3093	538	634	385	385	385
2002	Light duty vehicles	Highway driving	70201	9	1320	137	8	1364	275	23	11	207	207	207
2002	Light duty vehicles	Rural driving	70202	27	4241	535	30	3883	852	72	36	607	607	607
2002	Light duty vehicles	Urban driving	70203	27	4585	1241	96	11203	851	58	18	750	750	750
2002	Heavy duty vehicles	Highway driving	70301	25	5817	610	51	1397	777	30	3	269	269	269
2002	Heavy duty vehicles	Rural driving	70302	37	10337	1170	84	2583	1181	46	4	493	493	493
2002	Heavy duty vehicles	Urban driving	70303	27	7905	957	102	2195	843	27	3	404	404	404
2002	Mopeds		704	1	7	1787	36	3059	18	0	0	27	27	27
2002	Motorcycles	Highway driving	70501	0	25	135	14	1943	8	0	0	4	4	4
2002	Motorcycles	Rural driving	70502	1	47	380	39	4249	19	0	0	10	10	10
2002	Motorcycles	Urban driving	70503	1	31	602	47	4585	23	0	0	12	12	12
2002	Evaporation		706	0	0	7458	0	0	0	0	0	0	0	0
2002	Military		801	5	416	55	4	317	89	4	0	20	20	20
2002	Railways		802	7	3385	247	10	635	211	6	1	125	125	125
2002	Inland waterways		803	23	1192	11070	112	19051	140	3	0	172	165	158
2002	National sea traffic		80402	1993	7444	304	9	966	414	26	0	432	410	390
2002	Fishing		80403	775	11038	494	15	1501	612	39	0	348	331	315
2002	International sea traffic		80404	39610	81292	2174	67	6914	2966	187	0	4428	4206	3996
2002	Air traffic, Dom. < 3000 ft.		80501	2	232	134	3	758	42	5	0	2	2	2
2002	Air traffic, Int. < 3000 ft.		80502	7	1011	115	11	641	221	13	0	4	4	4
2002	Air traffic, Dom. > 3000 ft.		80503	3	442	19	2	111	103	3	0	2	2	2
2002	Air traffic, Int. > 3000 ft.		80504	59	7701	261	28	963	1833	59	0	30	30	30
2002	Agriculture		806	376	19960	3480	96	18886	1219	51	3	2011	1911	1817
2002	Forestry		807	0	8	1029	10	1899	4	0	0	2	2	2
2002	Industry		808	201	10668	3052	148	10766	742	32	2	926	881	838
2002	Household and gardening		809	3	239	4162	130	47601	82	2	0	26	26	26

Annex 2.B.7 Uncertainty estimate calculation schemes for CO₂, CH₄ and N₂O in transport

	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	
		Input data Gg CO ₂	Input data Gg CO ₂	Input data %	Input data %	%	%	
Civil Aviation	Aviation Gasoline	CO ₂	8,29	7,18	2	5	5,385	0,003
	Jet Kerosene	CO ₂	208,16	138,74	2	5	5,385	0,052
Road Transportation	Gasoline	CO ₂	4.914,00	6.020,54	2	5	5,385	2,271
	Diesel Oil	CO ₂	4.436,10	5.368,90	2	5	5,385	2,025
Railways	Diesel Oil	CO ₂	296,75	210,50	2	5	5,385	0,079
Navigation	Residual Oil	CO ₂	277,66	161,01	2	5	5,385	0,061
	Gas/Diesel Oil	CO ₂	246,26	320,04	2	5	5,385	0,121
Agriculture	Diesel Oil	CO ₂	1280	1184	20	5	20,616	1,709
	Gasoline	CO ₂	38	36	20	5	20,616	0,052
Forestry	Diesel Oil	CO ₂	0	0	20	5	20,616	0,000
	Gasoline	CO ₂	4	4	20	5	20,616	0,006
Industry	Diesel Oil	CO ₂	687	635	20	5	20,616	0,917
	Gasoline	CO ₂	10	10	20	5	20,616	0,015
	LPG	CO ₂	81	97	20	5	20,616	0,117
Household and gardening	Gasoline	CO ₂	87	82	20	5	20,616	0,125
	Total	CO ₂	12574,6037	14274,465				13,084
Total uncertainties				Overall uncertainty in the year (%):			3,617	

		Gas	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
			%	%	%	%	%
Civil Aviation	Aviation Gasoline	CO2	-0,000178	0,0006	-0,0009	0,0016	0,0018
	Jet Kerosene	CO2	-0,007758	0,0110	-0,0388	0,0312	0,0498
Road Transportation	Gasoline	CO2	0,035033	0,4788	0,1752	1,3542	1,3655
	Diesel Oil	CO2	0,026399	0,4270	0,1320	1,2076	1,2148
Railways	Diesel Oil	CO2	-0,010047	0,0167	-0,0502	0,0473	0,0690
Navigation	Residual Oil	CO2	-0,012259	0,0128	-0,0613	0,0362	0,0712
	Gas/Diesel Oil	CO2	0,003219	0,0255	0,0161	0,0720	0,0738
Agriculture	Diesel Oil	CO2	-0,021374	0,0941	-0,1069	2,6622	2,6644
	Gasoline	CO2	-0,000588	0,0028	-0,0029	0,0803	0,0804
Forestry	Diesel Oil	CO2	-6,19E-06	0,0000	0,0000	0,0008	0,0008
	Gasoline	CO2	-6,82E-05	0,0003	-0,0003	0,0093	0,0093
Industry	Diesel Oil	CO2	-0,011473	0,0505	-0,0574	1,4283	1,4295
	Gasoline	CO2	-0,000162	0,0008	-0,0008	0,0235	0,0235
	LPG	CO2	0,000407	0,0065	0,0020	0,1829	0,1829
Household and gardening	Gasoline	CO2	-0,001342	0,0069	-0,0067	0,1950	0,1951
	Total	CO2					12,57911942
Total uncertainties				Trend uncertainty (%):			3,547

		Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t
			Input data Gg CH4	Input data Gg CH4	Input data %	Input data %	%	%
Civil Aviation	Aviation Gasoline	CH4	0,00	0,00	2	100	100,020	0,063
	Jet Kerosene	CH4	0,00	0,00	2	100	100,020	0,095
Road Transportation	Gasoline	CH4	2,27	2,69	2	40	40,050	31,488
	Diesel Oil	CH4	0,35	0,32	2	40	40,050	3,741
Railways	Diesel Oil	CH4	0,01	0,01	2	100	100,020	0,278
Navigation	Residual Oil	CH4	0,01	0,00	2	100	100,020	0,106
	Gas/Diesel Oil	CH4	0,01	0,01	2	100	100,020	0,284
Agriculture	Diesel Oil	CH4	0	0	20	100	101,980	2,113
	Gasoline	CH4	0	0	20	100	101,980	0,745
Forestry	Diesel Oil	CH4	0	0	20	100	101,980	0,001
	Gasoline	CH4	0	0	20	100	101,980	0,306
Industry	Diesel Oil	CH4	0	0	20	100	101,980	1,146
	Gasoline	CH4	0	0	20	100	101,980	0,480
	LPG	CH4	0	0	20	100	101,980	2,775
Household and gardening	Gasoline	CH4	0	0	20	100	101,980	3,867
	Total	CH4	3,03965538	3,4216856				1035,006
Total uncertainties						Overall uncertainty i the year (%):		32,172

		Gas	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
			%	%	%	%	%
Civil Aviation	Aviation Gasoline	CH4	-0,000213	0,0007	-0,021308064	0,002003386	0,021402036
	Jet Kerosene	CH4	-0,000303	0,0011	-0,030295942	0,003026016	0,030446689
Road Transportation	Gasoline	CH4	0,045668	0,8850	1,826738205	2,50327431	3,098927999
	Diesel Oil	CH4	-0,025792	0,1051	-1,031661444	0,297400028	1,073672255
Railways	Diesel Oil	CH4	-0,001436	0,0031	-0,143592714	0,008838906	0,143864498
Navigation	Residual Oil	CH4	-0,001126	0,0012	-0,112564703	0,00338054	0,112615454
	Gas/Diesel Oil	CH4	0,000579	0,0032	0,057901801	0,009038035	0,05860294
Agriculture	Diesel Oil	CH4	-0,005061	0,0233	-0,506148753	0,659750951	0,831539462
	Gasoline	CH4	-0,001619	0,0082	-0,161870173	0,232619327	0,283396726
Forestry	Diesel Oil	CH4	-1,44E-06	0,0000	-0,000144413	0,000188191	0,000237216
	Gasoline	CH4	-0,000665	0,0034	-0,066538478	0,095615755	0,116489234
Industry	Diesel Oil	CH4	-0,002745	0,0126	-0,274505784	0,357769432	0,450946108
	Gasoline	CH4	-0,001043	0,0053	-0,104254515	0,149816732	0,182521388
	LPG	CH4	0,00185	0,0306	0,184988611	0,866329921	0,885860214
Household and gardening	Gasoline	CH4	-0,008399	0,0427	-0,8398684	1,207394781	1,470775675
	Total	CH4					14,76426267
Total uncertainties				Trend uncertainty (%):			3,842

		Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t
			Input data Gg N2O	Input data Gg N2O	Input data %	Input data %	%	%
Civil Aviation	Aviation Gasoline	N2O	0,00	0,00	2	1000	1000,002	0,141
	Jet Kerosene	N2O	0,01	0,01	2	1000	1000,002	5,464
Road Transportation	Gasoline	N2O	0,15	0,89	2	50	50,040	31,902
	Diesel Oil	N2O	0,27	0,38	2	50	50,040	13,599
Railways	Diesel Oil	N2O	0,01	0,01	2	1000	1000,002	4,154
Navigation	Residual Oil	N2O	0,02	0,01	2	1000	1000,002	7,240
	Gas/Diesel Oil	N2O	0,01	0,02	2	1000	1000,002	13,479
Agriculture	Diesel Oil	N2O	0,05	0,05	20	1000	1000,200	35,532
	Gasoline	N2O	0,00	0,00	20	1000	1000,200	0,631
Forestry	Diesel Oil	N2O	0,00	0,00	20	1000	1000,200	0,010
	Gasoline	N2O	0,00	0,00	20	1000	1000,200	0,019
Industry	Diesel Oil	N2O	0,03	0,03	20	1000	1000,200	19,268
	Gasoline	N2O	0,00	0,00	20	1000	1000,200	0,156
Household and gardening	LPG	N2O	0,00	0,00	20	1000	1000,200	3,333
	Gasoline	N2O	0,00	0,00	20	1000	1000,200	1,284
	Total	N2O	0,56273641	1,3970775				3130,901
Total uncertainties						Overall uncertainty i the year (%):		55,954

		Gas	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
			%	%	%	%	%
Civil Aviation	Aviation Gasoline	N2O	-0,000651	0,0004	-0,651388547	0,000990162	0,651389299
	Jet Kerosene	N2O	-0,02784	0,0136	-27,83992431	0,038365003	27,83995074
Road Transportation	Gasoline	N2O	0,915346	1,5828	45,76729291	4,476727935	45,98571727
	Diesel Oil	N2O	-0,524311	0,6747	-26,21557134	1,908373673	26,28494
Railways	Diesel Oil	N2O	-0,025763	0,0103	-25,76340152	0,029167053	25,76341803
Navigation	Residual Oil	N2O	-0,058802	0,0180	-58,80239977	0,050840038	58,80242175
	Gas/Diesel Oil	N2O	-0,03135	0,0335	-31,35032428	0,094648418	31,35046716
Agriculture	Diesel Oil	N2O	-0,148395	0,0882	-148,3950456	2,49457977	148,4160116
	Gasoline	N2O	-0,002569	0,0016	-2,568697096	0,044313227	2,569079297
Forestry	Diesel Oil	N2O	-4,24E-05	0,0000	-0,042369482	0,00071157	0,042375456
	Gasoline	N2O	-7,89E-05	0,0000	-0,078922382	0,001361488	0,078934125
Industry	Diesel Oil	N2O	-0,080507	0,0478	-80,5066993	1,352759533	80,51806375
	Gasoline	N2O	-0,000637	0,0004	-0,636794447	0,01098536	0,636889195
	LPG	N2O	-0,008869	0,0083	-8,869207891	0,233976721	8,872293599
Household and gardening	Gasoline	N2O	-0,005225	0,0032	-5,224651785	0,090133309	5,225429197
	Total	N2O					37308,90934
Total uncertainties				Trend uncertainty (%):			193,155

Annex 2C

Agriculture

Annex 2C.1 Background information - NH₃ from Manure Management

N-excretion

In table 6.1 is shown the average N-excretion for each animal category in the period from 1990 to 2002 used in the Danish emission inventory.

Table 2C.1 Nitrogen excretion rates per head, 1990 – 2002 (NRF)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Kg N/head/yr</u>												
<u>Animal categories</u>													
Non-dairy cattle	36.57	36.68	36.80	36.92	36.64	36.56	36.62	36.74	36.77	37.00	37.15	37.72	37.77
Dairy cattle	129.49	128.63	127.76	126.89	126.06	125.22	125.09	124.94	124.82	124.60	125.31	124.91	126.70
Sheep*	21.18	21.33	21.47	21.61	21.76	21.90	20.11	18.32	16.53	14.75	16.95	16.95	16.93
Swine	11.62	11.43	11.17	10.40	10.38	9.62	9.89	9.74	9.65	9.83	9.63	9.30	9.71
Poultry	0.65	0.66	0.58	0.59	0.66	0.62	0.60	0.62	0.62	0.57	0.55	0.57	0.59
Horses	48.89	47.77	46.66	45.54	44.42	43.31	43.31	43.31	43.31	43.31	43.31	43.31	43.31
Fur farming	490	4.83	4.80	4.75	4.70	4.65	4.66	4.65	4.64	4.63	4.63	4.62	4.61
	<u>M kg N/yr</u>												
N-excretion, total	293	291	293	293	283	274	275	274	279	270	270	274	277

* The category includes goats.

Stable system

A systematic statement of the stabling of husbandry does not exist and the stabling is therefore based on estimate (Rasmussen, J.B. and Lundgaard, N.H., pers. comm.). The structural development in the agricultural sector has an influence in change of stable types. The last few year new stables are build and tied-up stables are replaced by bigger stables with loose-holding systems (Danish Agricultural Advisory Centre). In 1990 79% of the dairy cattle were kept in tied-up stables and in 2002 the part is reduced to 35%. In loose-holding systems the cattle have more space and this will increase the ammonia emission per animal compared to the tied-up stables. In table 6.1 the distribution of stable type for dairy cattle and slaughtering pigs from 1990-2002 is listed.

Table 2C.2 The percentage distribution of stable type – Dairy cattle and slaughtering pigs 1990 - 2002

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
	<u>Percent</u>												
<u>Dairy cattle</u>													
Tied-up stables	79	78	77	76	74	73	72	66	60	60	46	40	35
Loose-holdings with beds	57	57	58	58	59	59	60	57	54	54	62	61	62
Deep litter	14	15	16	17	17	18	19	23	27	27	37	40	43
<u>Slaughtering pigs</u>													
Full slatted floor	51	56	60	60	60	60	60	60	60	60	58	57	56
Partly slatted floor	23	21	20	21	23	24	25	26	28	29	31	33	34
Solid floor	22	19	15	14	12	11	9	8	6	5	5	4	4
Deep litter	4	4	5	4	4	3	3	2	2	1	1	1	1

Emission of ammonia

Stables

The emission from stables is thus determined by a number of different conditions, that depends on stable type and the different kinds of manure disposal systems placed in these stables. Danish Institute of Agricultural Sciences has carried out a number of emission surveys and estimated emission coefficients for different types of stables (Poulsen *et al.*, 2001). In table 6.3 is shown the emission from Dairy cattle and slaughtering pigs in different stable systems.

Table 2C.3 Ammonia emission from stables – Dairy cattle and slaughtering pigs.

Livestock category	Manure system	Manure type	Ammonia emission
			pct NH ₃ -N of Nab Animal
Dairy cattle	Tied-up	Solid manure	5,0
		+ Liquid	5,0
	Tied-up	Slurry	3,0
	Loose-holding with beds, slatted floor	Slurry	8,0
	Loose-holding with beds, slatted floor, scrapes	Slurry	6,0
	Loose-holding with beds, solid floor	Slurry	10,0
	Deep litter (all)	Deep litter	6,0
	Deep litter, slatted floor	Deep litter	6,0
		+ Slurry	8,0
	Deep litter, slatted floor, scrapes	Deep litter	6,0
		+ Slurry	6,0
	Deep litter, solid floor, scrapes	Deep litter	6,0
		+ Slurry	10,0
Slaughtering pigs ¹	Partly slatted floor	Slurry	16,0
	Solid floor	Slurry	12,0
	Deep litter	Solid manure	18,0
		+ Liquid	18,0
	Deep litter	Deep litter	15,0
	Partley slatted floor and partley deep litter	Deep litter	15,0
		+ Slurry	12,0

¹ 76.3 kg average slaughter weight

Storage

Livestock manure is collected either as solid manure or as slurry depending on stable type. In table 6.4 is shown the emission factor used for storage. It is assumed that the part of solid manure taken directly from the stable into the field is 80% from cattle, 25% from pigs, 50% sows, 15% from poultry and 5% from hens (Poulsen *et al.*, 2001). The remaining part of the solid manure is deposited in stock piles in the field before field application.

By law all slurry tanks have to be covered by a crust in order to reduce ammonia emission. However, an investigation shows that 20% of the tanks with pig slurry and 5% of tanks with cattle slurry were incompletely covered in 1999 (COWI, 2000). This information has been incorporated in the emission inventory.

Table 2C.4 Emission factors for storage (Poulsen et al, 2001).

Animal category	liquid manure	Slurry	Solid manure	Deep litter	
	Loss of NH ₃ -N in % of N ab stable				
Cattle	2	2.2	5	8.8	
Pig	2	3.4	25	12.5	Sows
	2	3.4	25	25	Piglets
	2	3.4	25	18.8	Slaughter pigs
Poultry	-	2	5	9.5	Hens and pullet
	-	-	-	12.8	Broilers
	-	-	-	15	Tyrkey, geese and ducks
Fur farming	0	2	15	-	
Sheep/goats	-	-	-	5	
Horses	-	-	-	5	

Spreading in fields

There is no statistical information on how the farmer handling the manure in practice. In calculation of emission from application of manure on the fields is used to different weighted emission factors, which distinguish between solid manure and liquid manure. In 2002 the emission factor for solid and liquid manure is estimated to 12% and 6% of N ab storage, respectively.

The weighted emission factor will vary from year to year depending on changes in the practice of spreading. The weighted emission factor is based on background estimates of time of spreading, application methods, spreading in growing crops or on bare soil and the time from spreading to ploughing in soil. In table 6.5 background information for 2002 are given.

Table 2C.5 Estimate for application method, time of spreading and time before the manure is incorporated in the soil 2001 (Based on note from the Organisation Danish Agriculture 2002)

Application methods	Time of spreading	Percentage distribution of manure	Time before incorporation in soil			
			0	< 12 hours	>12 hours	not incorporated
Liquid manure						
Incorporated	winter-spring	16	16	-	-	-
Incorporated	summer-autumn	4	4	-	-	-
Trailing horses	winter-spring	56	-	10	5	41
Trailing horses	spring-summer	3	-	0	0	3
Trailing horses	late summer-autumn	8	-	3	0	5
Broad spreading	winter-spring	10	-	5	1	4
Broad spreading	spring-summer	1	-	0	0	1
Broad spreading	late summer-autumn	2	-	2	0	0
Total		100	20	20	6	54
Solid manure						
Broad spreading	winter-spring	80	-	54	15	11
Broad spreading	spring-summer	0	-	-	-	-
Broad spreading	late summer-autumn	20	-	13	2	5
Total		100	-	63	19	18

Annex 2C.2 Background information - NH₃ from Agricultural Soils

Crops

Literature research shows that the volatilisation from crop types differs considerably (Andersen *et al.* 1999). Recent investigation of four different crop types measured in two seasons shows that the volatilisation is between 0-5 kg NH₃-N per hectare (Schjoerring and Mattsson 2001). Until more precisely data are available an average emission of 5 kg NH₃-N for cash crops and 3 kg NH₃-N for grass is used. The emission from organic farming is estimated to half the emission from conventional crops. A change in emission factors will have a substantial influence because the contribution from crop amounts to approximately 14% of the total ammonia emission.

Table 2C.6 Emission factor used to estimate the emission of ammonia from crops

Emission factor	Crops	
	Conventional kg N/ha	Organic farming kg N/ha
Cash crops, beets and silage maize	5	2.5
Grass/clover in rotation	3	1.5
Permanent grass	3	1.5
Set-a side	0	0

Synthetic fertiliser

Since the beginning of the 1990s there has been a decrease in use of synthetic fertiliser. This is due to the increased demand of utilising nitrogen in manure as outlined in the Action Plan on the Aquatic Environment. Further, the composition of the different fertiliser types has changed. At present, urea constitutes less than 1% of the total nitrogen used as fertiliser (table 6.7). It is estimated that 2.2% of the total nitrogen used in synthetic fertiliser is emitted as ammonia in 2002. It means the implied emission factor for 2002 is 2.2%.

Data on the use of synthetic fertiliser is based on the sale estimations collected by The Danish Plant Directorate (2002). Data for emission factors are collected by Danish Institute of Agricultural Sciences (Sommer *et al.* 1992, 1994 and 1996).

The use of mineral fertiliser includes fertiliser used in parks, golf courses and private gardens. Approximately 1-2 percent of the mineral fertiliser can be related to this use out side the agriculture area.

Table 2C.7 Synthetic fertiliser consumption 2002 and emission factors.

Synthetic fertiliser year 2002	Emission factor ¹	Consumption ² Mio. kg N
<u>Fertiliser type</u>		
Calcium and boron calcium nitrate	0.02	0.5
Ammonium sulphate	0.05	3.6
Calcium ammonium nitrate and other nitrate types	0.02	78.5
Ammonium nitrate	0.02	21.1
Liquid ammonia	0.01	7.9
Urea	0.15	0.5
Other nitrogen fertiliser	0.05	10.3
NPK-fertiliser	0.02	75.2

Diammonphosphate	0.05	0.5
Other NP fertiliser types	0.02	2.4
NK fertiliser	0.02	10.3
Emission of NH ₃ -N from synthetic fertiliser	0.02	210.8

¹ Danish Institute of Agricultural Sciences (Sommer *et al.* 1992, 1994 and 1996)

² The Danish Plant Directorate

Grazing

It is assumed that 15% of the manure from dairy cattle is deposited in the field, which corresponding to 55 days per year. For heifers 54% of the nitrogen in the manure is estimated deposited during grazing, 61% for suckling cows, 50% for horses and 73% for sheep and goats.

An emission factor of 7% of the total nitrogen content is assumed to evaporate as NH₃ (Jarvis *et al.* 1998a, Jarvis *et al.* 1989b and Bussink 1994). The emission factor is used on all animal categories.

Ammonia treated straw

Ammonia is used for conservation of straw for feeding and to improve the nitrogen content. Investigations show that 80-90% of the supplied ammonia (given in NH₃-N) will emit (Andersen *et al.* 1999). However, the emissions can be reduced particularly if the right dose is used. Therefore it is estimated that the emission factor is 65% of the applied ammonia (given in NH₃-N). Information on ammonia used for treatment of straw is collected from ammonia suppliers.

In The Ammonia Action Plan different measures to reduce the ammonia emission has been initiated, which include a ban of ammonia treated straw from 2003.

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