National Environmental Research Institute
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Annual Danish Emission Inventory Report to UNECE

Inventories from the base year of the protocols to year 2003

Research Notes from NERI No. 223

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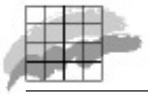

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2005

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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 2005. The report contains information on Denmark's emission inventories regarding emissions of (1) SO_x for the years 1980-2003, (2) NO_x, CO, NMVOC and NH_3 for the years 1985-2003; (3) Particulate matter: TSP, PM10, PM2.5 for the years 2000-2003, (4) Heavy Metals: Pb, Cd, Hg, As, Cr, Cu, Ni, Se and Zn for the years 1990-2003, and (5) Polyaromatic hydrocarbons (PAH): Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene and indeno(1,2,3-cd)pyrene for the years 1990-2003. Further, the report contains information on background data for emissions inventory.

Keywords:	Emission Inventory; Emissions; Projections; UNECE; EMEP; NO_x; CO; NMVOC; SO_x; NH_3; TSP; PM10; PM2.5; Pb; Cd; Hg; As; Cr; Cu; Ni; Se; Zn; Polyaromatic 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 2005 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 2003.

The gases reported under the LRTAP Convention are SO_2, NO_X, NMVOC, CO, NH_3, As, Cd, Cr, Cu, Hg, Ni, Pb, Se, Zn, dioxiner/furaner, PAH's, TSP, $PM_{2.5}$ and PM_{10}.

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 2003 the most important acidification factor in Denmark was ammonia nitrogen and the relative contributions for SO_2, NO_X and NH_3 were 9%, 40% and 51% respectively. However, regarding long range transport of air pollution SO_2 and NO_X are still the most important pollutants.

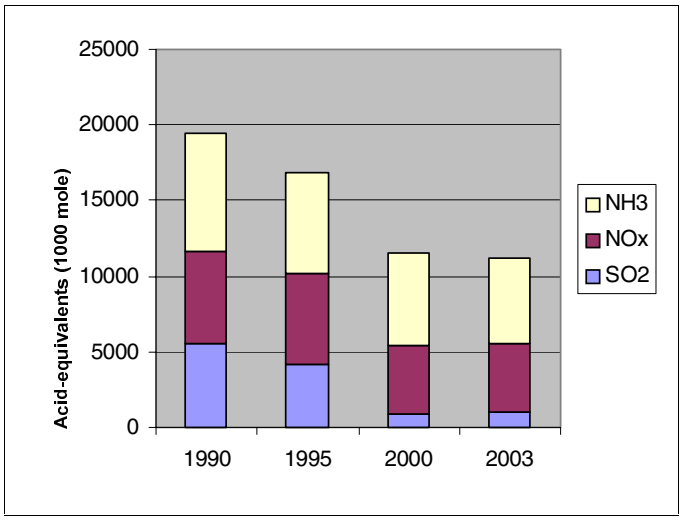


Figure S.1. Emissions of NH_3, NO_X and SO_2 in acid equivalents.

SO_2

The main part of the SO_2 emissions originates from combustion of fossil fuels, i.e. mainly coal and oil, on public power and district heating plants. From 1980 to 2003 the total emission has decreased by 93%. 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 SO_2 emissions these plants make up 56% of the total emission. From 2002 to 2003 the emissions have increased by 23% due to a large export of electricity to the other Nordic countries. 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 SO_2 emission. This is due to the use of residual oil with high content of sulphur.

NO_X

The three largest sources to emissions of NO_X are combustion in 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 2003 37% of the Danish emissions of NO_X stem 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 47% from 1985 to 2003. In the same period the total emission has decreased by 32%. The reduction is due to increasing use of catalyst cars and installation of low-NO_X-burners and de-nitrifying units on power and district heating plants.

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 (15%), use of mineral fertilisers (6%), sewage sludge used as fertiliser and ammonia used for straw treatment (less than 1%). The total ammonia emission has decreased by 32% from 1985 to 2003. This is due to the offensive national environmental policy during the last twenty years.

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 the use of solvents. The emissions from energy industries have increased during the nineties because of increasing use of stationary gas engines, which have much higher emissions of NMVOC than conventional boilers. The total anthropogenic emissions have decreased by 39% from 1985 to 2003 mainly due to an increasing use of catalyst cars and reduced emissions from use of solvents.

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 forbidding burning of agricultural waste on fields. The emission decreased by 23 % from 1990 to 2003 mainly because of decreasing emissions 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 emission of PAH are combustion of wood in the residential sector and road transportation. The increasing emission trend is due to increasing combustion of wood in the residential sector.

Particulate Matter

The particulate matter (PM) emission inventory has been reported for the years 2000-2003. 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 ($PM_{2.5}$).

The largest $PM_{2.5}$ emission sources are the residential sector (47%), road traffic (19%) and other mobile sources (17%). For the latter the most important source is off-road vehicles and machinery in the agricultural/forestry sector (58%). For the transport sector exhaust emissions account for the major part (82%).

The largest TSP emission sources are the agricultural sector and the residential sector. The TSP emissions from transport are also important and include both exhaust emissions and the non-exhaust emissions from brake and tyre wear and road abrasion. The non-exhaust emissions account for 24% of the TSP emission from transport.

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 span from 15% 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 a 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 fare 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 2005 is small. The most important recalculations for the various sectors are mentioned below.

Stationary combustion
Recalculation is mainly a result of an update of fuel rates according to the latest energy statistics. The update included the years 1980-2002.

Further the PM emission factors for residential plants have been changed considerably as a result of a Nordic project focussing on these factors. The applied emission factors are much higher than in the former inventories.

Some additional improvement causing only very limited changes of the estimated total emission from stationary combustion are discussed in section 3.2.5.

Transport
Recalculation is mainly a result of improvements of emission factors. For road transport 1990-1991 POP emission factors have been updated in order to correct errors in the inventories for these years. For railways an update of NO_X, NMVOC, CH_4, CO and PM factors for diesel in 2002 has been carried out. Previously, 2001 factors were used. For civil aviation several new turboprops are included in the list of representative aircraft. The change affects also the fuel use split between domestic and international aviation. For navigation for 2002 the diesel fuel use has been updated according to the official Danish energy statistics from DEA.

Further details are presented in section 3.3.

Fugitive emissions
Emissions from offshore activities have been updated using the methodology described in the Emission Inventory Guidebook 3rd edition. The sources include emissions from extraction of oil and gas, on-shore oil tanks, on-shore and offshore loading of ships. The emission factors are based on the figures given in the Guidebook except for the on-shore oil tanks where national values are used.

Industry
NH_3 emissions from treatment of slaughterhouse waste is now included in the inventory.

Solvents
A new approach for calculating the emissions of Non-Methane Volatile Organic Carbon (NMVOC) from industrial and household use in Denmark is introduced. It focuses on single chemicals rather than activities. 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.

Agriculture
Few changes are made for the ammonia emission 1985 – 2002, but they influence the total emission with less than 1% (refer to section 6.7). There are no changes in the emission of particulate matter.

The National Environmental Research Institute (NERI), which are responsible for the emission inventory, has established data agreements with the institutes and organisations to assure that the necessary data is available to work out the emission inventory in time. The main part of the emission is related to the livestock production and many of the data is based on Danish standards, which necessarily request for better documentation.

This year, in co-operation with the Danish Institute of Agricultural Science, a detailed description of the methodology used to calculate the emission of both the ammonia and greenhouse gases has been published (Mikkelsen et al. 2005). Presently, this report is only available in Danish.

Sammenfatning

I Baggrund for emissionsopgørelser

Årlig rapport
Denne rapport er Danmarks årlige rapport om emissionsopgørelser sendt til UNECE-konventionen om langtransporteret grænseoverskridende luftforurening (LRTAP) i maj 2005. Rapporten indeholder oplysninger om Danmarks opgørelser for alle år fra basisårene for protokollerne til 2003.

Gasserne der rapporteres til LRTAP-konventionen er SO_2, NO_X, NMVOC, CO, NH_3, As, Cd, Cr, Cu, HG, Ni, Pb, Se, Zn, dioxiner/furaner, PAH, TSP, $PM_{2,5}$ og PM_{10}.

Den årlige emissionsopgørelse for Danmark rapporteres i det format (NFR) som angivet i retningslinierne for rapportering. Det fuldkomne sæt af NFR-filer er opgivet i rapporten.

Emnerne behandlet i rapporten er: Udvikling i emissioner, beskrivelse af hver NFR-kategori, usikkerheder, rekalkulationer, planlagte forbedringer og procedure for kvalitetssikring og -kontrol. Strukturen i rapporten er, så vidt muligt, den samme som den nationale emissions-opgørelsesrapport sendt til FN's konvention om klimaændringer (UNFCCC).

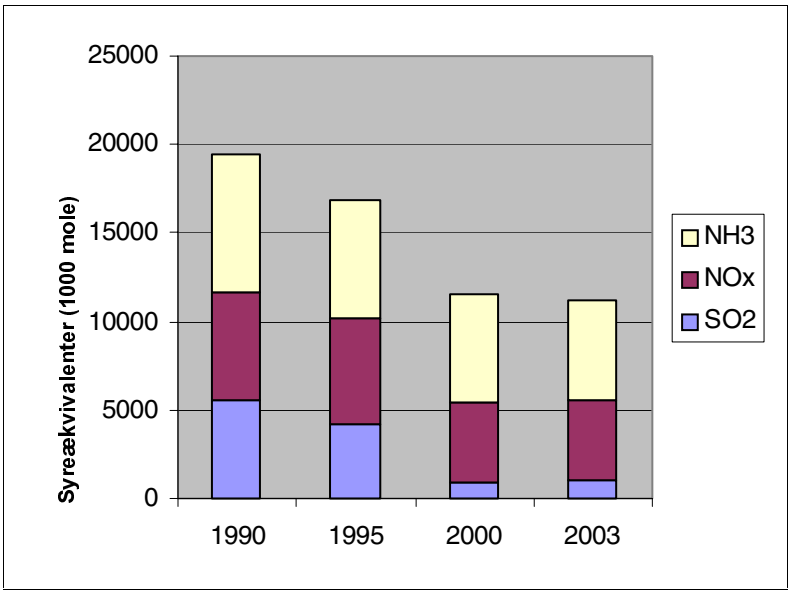
Denne rapport og NFR-tabellerne er tilgængelige for offentligheden på DMU's hjemmeside.

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

Ansvarligt institut
Danmarks Miljøundersøgelser (DMU) under Miljøministeriet er ansvarlig for udarbejdelse af den årlige danske emissionsrapport og opgørelserne i NFR-format i overensstemmelse med retningslinierne samt rapportering til UNECE-LRTAP-konventionen. DMU deltager i møder under UNECEs arbejdsgruppe for emissionsopgørelser og –fremskrivninger samt ekspert-paneler, hvor parter i konventionen udarbejder retningslinier og metoder for emissionsopgø-relserne.

II Trends in emissions

Forsurende gasser
Figur S.1 viser emissionen af danske forsurende gasser opgjort i syreækvivalenter. I 1990 var det relative bidrag af syreækvivalenter næsten ens for de tre gasarter. I 2003 var ammoniak den vigtigste forsurende faktor i Danmark og de relative bidrag for SO_2, NO_X og NH_3 var på henholdsvis 9%, 40% og 51%. Med hensyn til langtransporteret luftforurening er det dog stadig SO_2 og NO_x, der er de største kilder.



Figur S.1. Emissioner af NH_3, NO_X og SO_2 i syreækvivalenter.

SO_2

Hovedparten af SO_2-emissionerne stammer fra forbrænding af fossile brændsler, dvs. primært kul og olie, på kraftværker, kraftvarmeværker og fjernvarmeværker. Fra 1980 til 2003 er det totale udslip reduceret med 93%. Den store reduktion er primært opnået gennem installation af afsvovlingsanlæg og brug af brændsler med lavt svovlindhold på kraftværker og fjernvarmeværker. Trods den store reduktion er disse værker kilde til 56% af det samlede udslip. Fra 2002 til 2003 er emissionen øget med 23% grundet en stor eksport af el til andre nordiske lande. Også emissioner fra industrielle forbrændingsanlæg, ikke-industrielle forbrændingsanlæg og andre mobile kilder er væsentlige bidragsydere til emissionen. National søfart (sejlads og fiskeri) bidrager med omkring 11% af den totale SO_2-emission. Dette skyldes brug af residualolie med et højt svovlindhold.

NO_X

De tre største kilder til emissioner af NO_X er forbrænding i energisektoren (hovedsageligt kraftværker og fjernvarmeværker), vejtransport og andre mobile kilder. Transportsektoren er den sektor der bidrager mest til udledningen af NO_X og i 2003 stammede 37% af de danske NO_X-emissioner fra vejtransport, national sejlads, jernbaner og civil luftfart. Også emissioner fra nationalt fiskeri og off-road køretøjer (entreprenør-, landbrugsmaskiner, m.m.) bidrager betydeligt til NO_X-emissionen. For ikke-industrielle forbrændingsanlæg er de primære kilder forbrænding af gasolie, naturgas og træ i husholdninger. Emissionerne fra kraftværker og fjernvarmeværker er faldet med 47% fra 1985 til 2003. I sammen periode er den totale emission faldet med 32%. Reduktionen skyldes øget brug af katalysatorer i biler og installation af lav-NO_X-brændere og de-NO_X-anlæg på kraftværker og fjernvarmeværker.

NH_3

Stort set alle atmosfæriske emissioner af NH_3 stammer fra aktiviteter i landbruget. Kun en mindre del skyldes vejtransport. Denne del er dog stigende pga. den øgede brug af biler med katalysator. Hovedparten af emissionen fra landbruget stammer fra husdyrgødning (79%) og de største tab af ammoniak optræder under håndtering af gødningen i stalden og under spredning på marken. Andre bidrag kommer fra afgrøder (15%), brug af kunstgødning (6%), slam fra rensningsanlæg brugt som gødning og ammoniak brugt til behandling af halm (mindre end 1%). Den totale ammoniakemission er faldet 32% fra 1985-2003. Dette skyldes den nationale miljøpolitik der ført gennem de sidste 20 år.

Andre luftforurenende stoffer

NMVOC

Emissionen af NMVOC stammer fra mange forskellige kilder og kan opdeles i to hovedgrupper: Ufuldstændig forbrænding og fordampning. Hovedkilderne til NMVOC-emissioner fra ufuldstændig forbrændingsprocesser er vejtrafik og andre mobile kilder, som national sejlads og ikke vej-gående maskiner. Køretøjer til vejtransport er fortsat den største bidragsyder, selvom emissionerne er faldet siden introduktionen af biler med katalysator i 1990. Emissionerne fra fordampning stammer hovedsageligt fra brugen af opløsningsmidler. Emissionerne fra energisektoren er steget igennem 90'erne pga. øget brug af stationære gasmotorer, som har meget højere emissioner af NMVOC end konventionelle kedler. De totale menneskeskabte emissioner er faldet med 39% fra 1985 til 2003, primært som følge af øget brug af biler med katalysator og reducerede emissioner fra brug af opløsningsmidler.

CO

Selvom biler med katalysator blev introduceret i 1990, er vejtransport stadig årsag til den største del af den totale CO-emission. Også andre mobile kilder og ikke-industrielle forbrændingsanlæg bidrager betydeligt til den totale emission af denne gas. Faldet i emissioner set i 1990 var en konsekvens af loven, der forbyder markafbrænding. Emissionen faldt med 23% fra 1990 til 2003 hovedsageligt pga. faldende emissioner fra vejtransport.

PAH'er

Den nuværende emissionsopgørelse for PAH (polycycliske aromatiske hydrocarboner) inkluderer de fire PAH'er der rapporteres til LRTAP- konventionen: Benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene og indeno(1,2,3-cd)pyrene. De vigtigste kilder til emission af PAH er forbrænding af træ i husholdningerne samt vejtransport. De stigende i emissioner skyldes øget forbrænding af træ i husholdningerne.

Partikler

Emissionsopgørelsen for partikler (Particulate Matter, forkortet PM) er blevet rapporteret for årene 2000-2003. Opgørelsen inkluderer den total emission af partikler TSP (Total Suspended Particles), emissionen af partikler mindre end 10 µm (PM_{10}) og emissionen af partikler mindre end 2,5 µm ($PM_{2,5}$).

De største kilder til $PM_{2,5}$-emission er husholdninger (47%), vejtrafik (19%) og andre mobile kilder (17%). For den sidstes vedkommende er off-road køretøjer samt landbrugs- og skovbrugsmaskiner de vigtigste kilder (58%). I transportsektoren tæller udstødningsemissioner for størstedelen (82%).

De største kilder til TSP-emission er landbrugssektoren og husholdningerne. TSP-emissionen fra transport er også vigtig og inkluderer både udstødningsemissioner og ikke-udstødningsrelaterede emissioner fra slid af bremser, dæk og vej. De ikke-udstødningsrelaterede emissioner udgør 24% af TSP-emissionen fra transport.

Tungmetaller

Generelt er de vigtigste kilder til emissioner af tungmetaller forbrænding af fossile brændsler og affald. Emissionerne af tungmetaller er faldet betydeligt de seneste år. Reduktionerne spænder fra 15% til 96% for henholdsvis Cu og Pb. Årsagen til de reducerede emissioner er hovedsageligt den øgede brug af røggasrensning på kraftværker og fjernvarmeværker (inklusive affaldsforbrændingsanlæg). Den store reduktion i emissionen af Pb skyldes et løbende skift til fordel for blyfri benzin, som er nødvendigt for biler med katalysator.

III Rekalkulationer og forbedringer

Generelt pågår der et betydeligt arbejde med at forbedre emissionsopgørelserne. Nye undersøgelser og forskning fra Danmark og udlandet inkluderes så vidt muligt som basis for emissionsestimaterne. Desuden følges arbejdet med opdateringer af EMEP/CORINAIR-retningslinjerne for emissionsopgørelser nøje med henblik på at indarbejde de bedste videnskabelige information som basis for opgørelserne. Andre vigtige kilder er IPCCs retningslinier (IPCC Guidelines og IPCC Good Practice Guidance.

Opgørelserne opdateres løbende med ny viden, således opgørelserne bedst mulig afspejler danske forhold. Ved forbedringer lægges vægt på at opdateringer omfatter hele tidsserier for at sikre konsistente data. Disse tiltag medfører rekalkulation af tidligere indberettede opgørelser. Rekalkulationerne har kun medført små ændringer i de national totale emissioner. De vigtigste rekalkulationer for de forskellige sektorer er nævnt i nedenstående.

Stationære forbrændingsanlæg
Rekalkulation skyldes hovedsageligt en opdatering af brændselsforbrugene i overensstemmelse med den seneste energistatistik. Opdateringen inkluderede årene 1980-2002.

Desuden er PM-emissionen for husholdninger blevet ændret betydeligt som følge af nye viden fremkommet i nationale og nordisk projekter. De nu anvendte emissionsfaktorer for PM er betydelige højere end i tidligere opgørelser.

Øvrige forbedringer der kun forårsager meget begrænsede ændringer i den estimerede totale emission fra stationære forbrændingsanlæg, er diskuteret i rapportens afsnit om stationær forbrænding.

Transport
Rekalkulationerne er hovedsageligt et resultat af forbedringer af emissionsfaktorer. For vejtransport 1990-1991 er emissionsfaktorerne for PAH'er og dioxiner blevet opdateret med henblik på at korrigere fejl i opgørelserne for disse år. For jernbaner er faktorerne for NO_X, NMVOC, CH_4, CO og PM for diesel i 2002 blevet opdateret. Tidligere var faktorer for 2001 anvendt. For civil luftfart er adskillige nye typer af propelmaskiner inkluderet i listen over repræsentative flyvemaskiner. Ændringen påvirker også opdelingen af brændselsforbruget mellem national og international luftfart. For sejlads i 2002 er brugen af diesel blevet opdateret i overensstemmelse med den officielle danske energistatistik fra Energistyrelsen.

Flere detaljer er beskrevet i sektion 3.3.

Flygtige emissioner
Emissioner fra offshore-aktiviteter er blevet opdateret ved brug af metodologien beskrevet i EMEP/CORINAIR-retningslinjerne for emissionsopgørelser. Kilderne inkluderer emissioner fra udvinding af olie og gas, råolietanke på land samt ladning og losning af skibe til søs og i havn. Emissionsfaktorerne er baseret på oplysningerne fra EMEP/CORINAIR-retningslinjerne undtaget for råolietankene på land, hvor nationale værdier er anvendt.

Industri
NH_3-emissioner fra behandling af slagteaffald er nu inkluderet i opgørelsen.

Opløsningsmidler
En ny metode til beregning af NMVOC-emissioner fra industri og husholdninger er anvendt. Metoden tager udgangspunkt i enkelte kemikalier og ikke som tidligere i aktiviteter. Fremgangsmåden er en kvantificering af brugen af kemikalier og en estimering af fraktionen af kemikalierne, der er udledt som konsekvens af brugen af dem.

Landbrug
Der er kun fortaget få opdateringer i beregningen af NH_3-emissionen. Ændringen i den beregnede emission er under 1%.

Danmarks Miljøundersøgelser (DMU), der er ansvarlig for emissionsopgørelsen, har indgået samarbejdsaftaler med institutter og organisationer for at sikre at de nødvendige data er tilgængelige til at udarbejde emissionsopgørelsen rettidigt.

Emissioner relateret til husdyrhold er baseret på danske standarder, hvilket nødvendiggør en bedre dokumentation af opgørelserne. I samarbejde med Danmarks Jordbrugsforskning er der i år udgivet en detaljeret beskrivelse af den metode der anvendes til beregning af emissionen af både ammoniak og drivhusgasser.

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 2005. The report contains information on Denmark's inventories for all years from the base years of the protocols to 2003.

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_adaei/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 Transport and Energy: 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 and Energy. 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 CO_2 uptake by forest.

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

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

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

Formerly the providing of data was 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 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., 2005).

For each submission databases and additional tools and submodels are frozen together with the resulting CRF-reporting format. This material is placed on central institutional servers, which are subject to routine back up services. Material backed up is archived safely. A further documentation and archiving system is the official journal for NERI for which there exist obligations for NERI as a governmental institute. In this journal system correspondence, in-going and out-going, is registered, which in this case involves registration of submissions and communication on inventories with the UNFCCC-Secretariat, with the European Commission, with review teams, etc.

Figure 1.1 shows a schematic overview of the process of inventory preparation. The figure illustrates the process of inventory preparation from the first step of collecting external data to the last step where the reporting schemes are generated to UNFCCC and EU (the CRF format (Common Reporting Format)) and to United Nations Economic Commission for Europe/Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (UNECE/EMEP) (the NFR format (Nomenclature For Reporting)). For data handling the software tool is CollectER (Pulles et al., 1999a), for the CRF reporting the software tool is ReportER (Pulles et al., 1999b) and CRF correction templates have been developed by NERI. Data files and program files used in the inventory preparation process is listed in Table 1.1.

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	

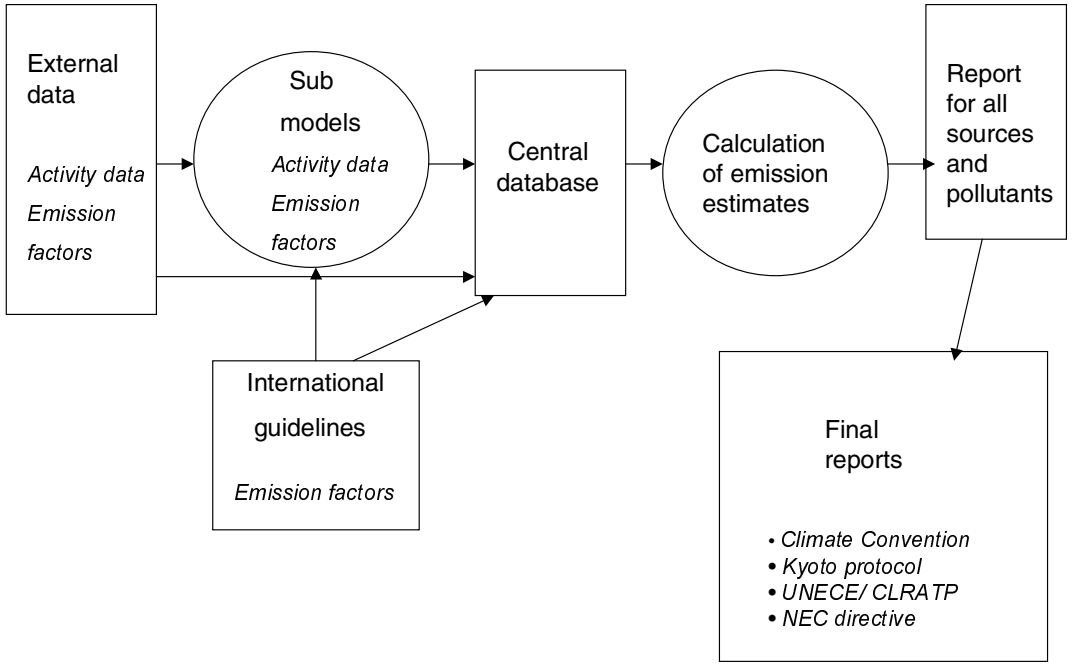


Figure 1.1 Schematic diagram of the process of inventory preparation.

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. Emission factors of SO_2, NO_X, HM and PM are often plant specific.

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

Fugitive emissions from oil (CRF Table 1.B.2. a)
Off-shore activities:
Emissions from offshore activities have been updated using the methodology described in the Emission Inventory Guidebook 3rd edition. The sources include emissions from extraction of oil and gas, on-shore oil tanks, on-shore and offshore loading of ships. The emission factors are based on the figures given in the Guidebook except for the on-shore oil tanks where national values are used.

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

Fugitive emissions from natural gas (1.B.2.b)
Natural gas transmission and distribution:
Inventories of NMVOC emission 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 1999-2003 reported by the Danish gas sector (transmission and distribution companies).

Please refer to Chapter 3 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 subcategories 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 2001-2003 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 (Winther, 2001).

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 aviation, navigation and fisheries. As regards aviation a revised domestic/international jet fuel use split has been made, due to the inclusion of several turboprop representative aircraft types. The recalculations influence the

NO_X, NMVOC and CO emission factors, and the emission estimates of NO_X, NMVOC and CO for the sector 1A3a. For navigation and fisheries the 2002 diesel fuel use has been updated, thus influencing the emission estimates for the sectors 1A3d and 1A4c.

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. 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 PM_{10} 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 PM_{10} 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 steelworks 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 or 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 PM_{10} 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)

A new approach for calculating the emissions of Non-Methane Volatile Organic Carbon (NMVOC) from industrial and household use in Denmark is introduced. It focuses on single chemicals rather than 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.

Simple mass balances for calculating the use and emissions of chemicals are set up 1) use = production + import – export, 2) emission = use * emission factor. Production, import and export figures are extracted from Statistics Denmark, from which a list of 427 single chemicals, a few groups and products are 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 NMVOCs comprise over 95 % of the total use, and it is these 44 chemicals that are investigated further. The "use" amounts are distributed in in-

dustrial activities according to the Nordic SPIN (Substances in Preparations in Nordic Countries) database, where information on industrial use categories and products is available in a NACE coding system. The chemicals are also related to specific products. Emission factors are obtained from regulators or the industry.

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

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 ammonia and particulate matter 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 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 based on the Agricultural Statistic published by Statistics Denmark (2004). 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 Centre. Furthermore, activity data from the Danish Environmental Protection Agency and the Danish Plant Directorate are used.

The uncertainties for ammonia emissions from manure management and agricultural soils have been estimated. The estimated emissions for particulate matter are connected with very high uncertainties, which are 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.

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

In the Danish National Inventory Report to UNFCCC (Illerup et al., 2005) a draft plan is outlined for implementing a Quality Control (QC) and Quality Assurance (QA) for greenhouse gas emission inventories performed by the Danish National Environmental Research Institute. The plan is under development and thus not a finite status and adjustments will still take place. The plan is in accordance with the guidelines provided by the UNFCCC and the Good Practice Guidance and Uncertainty Management in National Greenhouse Gas Inventories (IPCC). The ISO 9000 standards are also used as important input for the plan. The plan also to some extend includes the gases reported to UNECE-CLRTAP.

In the preparation of Denmark's annual emission inventory several quality control (QC) procedures are carried out already as described in chapters 3-6. The QA/QC plan will improve these activities in the future.

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 2001).

The uncertainty estimates are based on emission data for the base year and year 2003 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. The uncertainty estimates include the sectors: Stationary combustion, transport, industry and agriculture.

Table 1.2 Danish uncertainty estimates, 2003

Pollutant	Uncertainty Total emission [%]	Trend[2] 1990[1])-2003 [%]	Uncertainty Trend [%-age points]
SO_2	9	-82	±0,8
NO_x	32	-27	±4
NMVOC	38	-32	±15
CO	34	-24	±8
NH_3	28	-27	±18
TSP [1)]	263	-7,7	±20
As	124	-50	±6
Cd	263	-49	±68
Cr	191	-81	±28
Cu	739	-14	±200
Hg	229	-63	±53
Ni	171	-58	±18
Pb	261	-96	±31
Se	111	-53	±15
Zn	220	-34	±214
Benzo(b)fluoranthene	947	54	±29
Benzo(k)fluoranthene	913	57	±59
Benzo(a)pyrene	970	52	±12
Indeno(1,2,3-c,d)	960	35	±29

1. The base year for PM is 2000
2. Only including the emission sources for which uncertainty estimates have been estimated

1.7 General assessment of the completeness

The Danish emissions inventory due 15 February 2005 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. The methodology used for some of the pollutants from glass production is inconsistent and will be improved. Especially glass wool, mineral wool, chemical ingredients, and production of sugar will be extended. The incomplete time-series will also be completed.
- Chemical industry (NFR 2B): The time-series for emission of NO_X and NH_3 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. 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.

Agriculture

- The PM emission from stables will be included for the years 1985 to 1999.
- It is planned to replace the emission from sewage sludge used as fertiliser and applied on agricultural soils – from NFR category 4.B13 – Manure Management "Other" to NFR category 4.D – Agricultural Soils.

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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:

$$Acidification\ index = \frac{m_{SO_2}}{M_{SO_2}} \cdot 2 + \frac{m_{NO_x}}{M_{NO_x}} + \frac{m_{NH_3}}{M_{NH_3}} = \frac{m_{SO_2}}{64} \cdot 2 + \frac{m_{NO_x}}{46} + \frac{m_{NH_3}}{17}$$

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 2003 the most important acidification factor in Denmark was ammonia nitrogen and the relative contributions for SO_2, NO_X and NH_3 were 9%, 40% and 51% respectively. However, regarding long range transport of air pollution SO_2 and NO_X are still the most important pollutants.

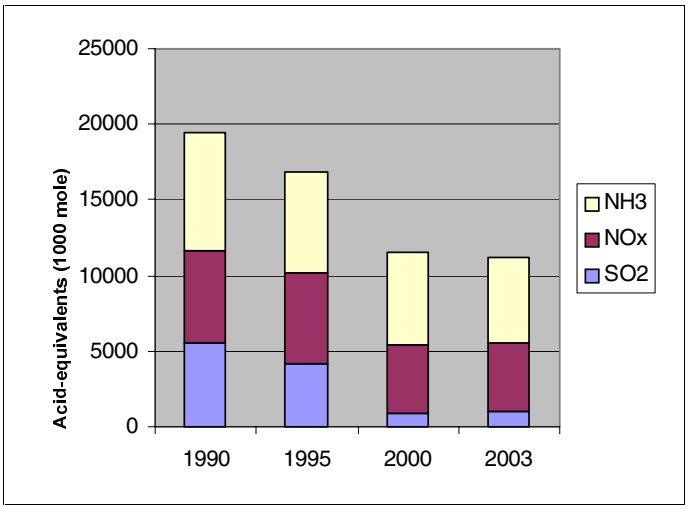


Figure 2.1 Emissions of NH_3, NO_X and SO_2 in acid equivalents.

2.2 Description and interpretation of emission trends by gas

SO_2

The main part of the SO_2 emissions originates from combustion of fossil fuels, i.e. mainly coal and oil, on public power and district heating plants. From 1980 to 2003 the total emission has decreased by 93%. 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 SO_2 emissions these plants make up 56% of the total emission. From 2002 to 2003 the emissions have increased by 23% due to a large export of electricity to the other Nordic countries. 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 SO_2 emission. This is due to the use of residual oil with high content of sulphur.

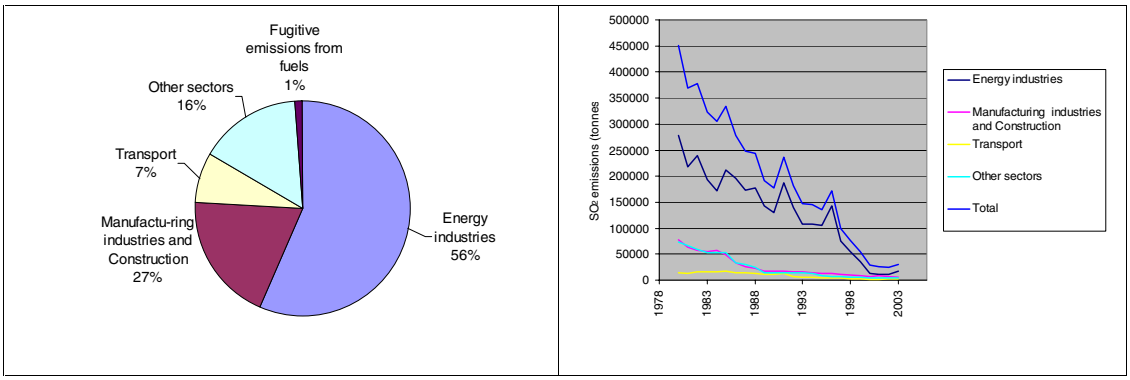


Figure 2.2 SO_2 emissions. Distribution on the main sectors (2003) and time-series for 1980 to 2003.

NO_X

The three largest sources to emissions of NO_X are combustion in 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 2003 37% of the Danish emissions of NO_X stem 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 47% from 1985 to 2003. In the same period the total emission has decreased by 32%. The

reduction is due to increasing use of catalyst cars and installation of low-NO_X-burners and de-nitrifying units on power and district heating plants.

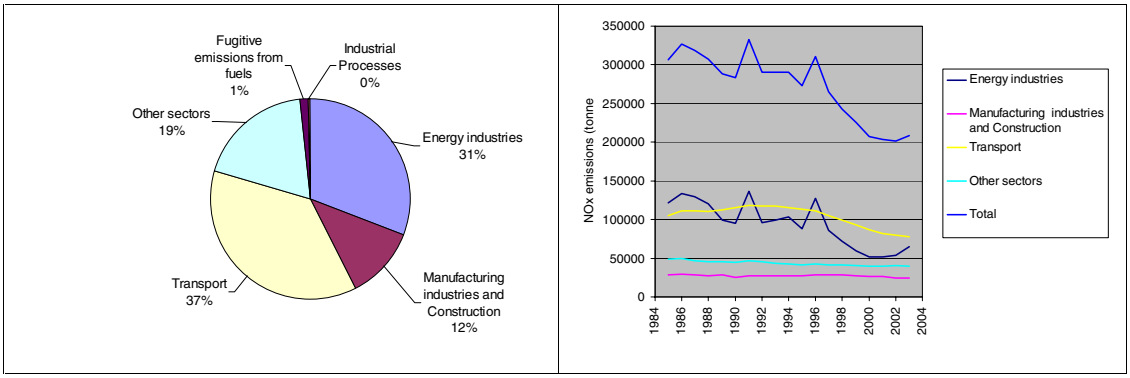


Figure 2.3 NO_X emissions. Distribution on the main sectors (2003) and time-series for 1985 to 2003.

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 (15%), use of mineral fertilisers (6%), sewage sludge used as fertiliser and ammonia used for straw treatment (less than 1%). The total ammonia emission has decreased by 32% from 1985 to 2003. 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, broad-spreading 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 production of swine and poultry the ammonia emission has been reduced considerably.

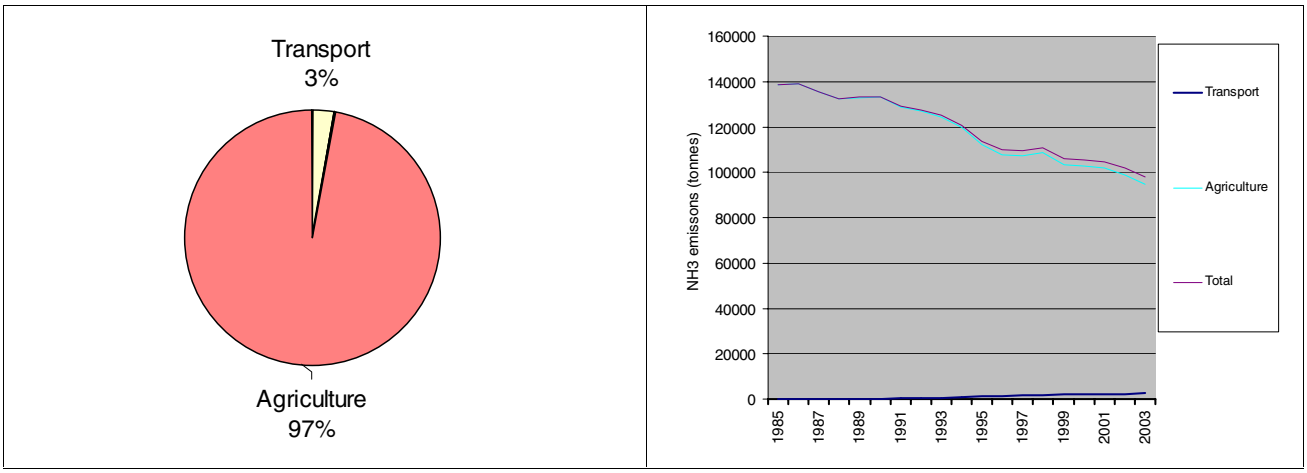


Figure 2.4 NH_3 emissions. Distribution on the main sectors (2003) and time-series for 1985 to 2003.

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 the use of solvents. The emissions from energy industries have increased during the nineties because of increasing use of stationary gas engines, which have much higher emissions of NMVOC than conventional boilers. The total anthropogenic emissions have decreased by 39% from 1985 to 2003 mainly due to an increasing use of catalyst cars and reduced emissions from use of solvents.

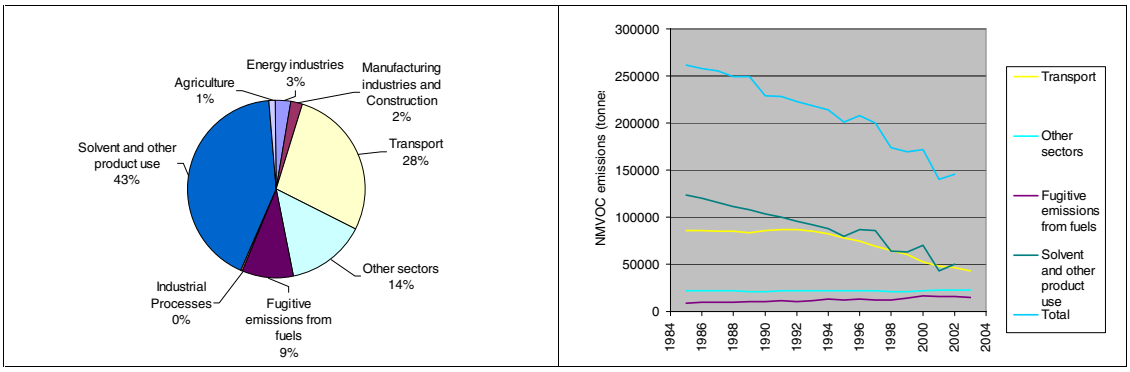


Figure 2.5 NMVOC emissions. Distribution on the main sectors (2003) and time-series for 1985 to 2003.

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 forbidding burning of agricultural waste on fields. The emission decreased by 23 % from 1990 to 2003 mainly because of decreasing emissions from road transportation.

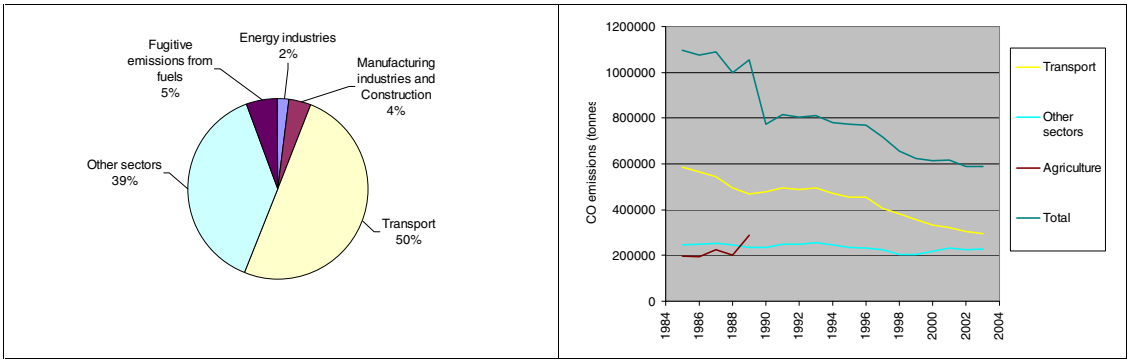


Figure 2.6 CO emissions. Distribution on the main sectors (2003) and time-series for 1985 to 2003.

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 combustion of wood in

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

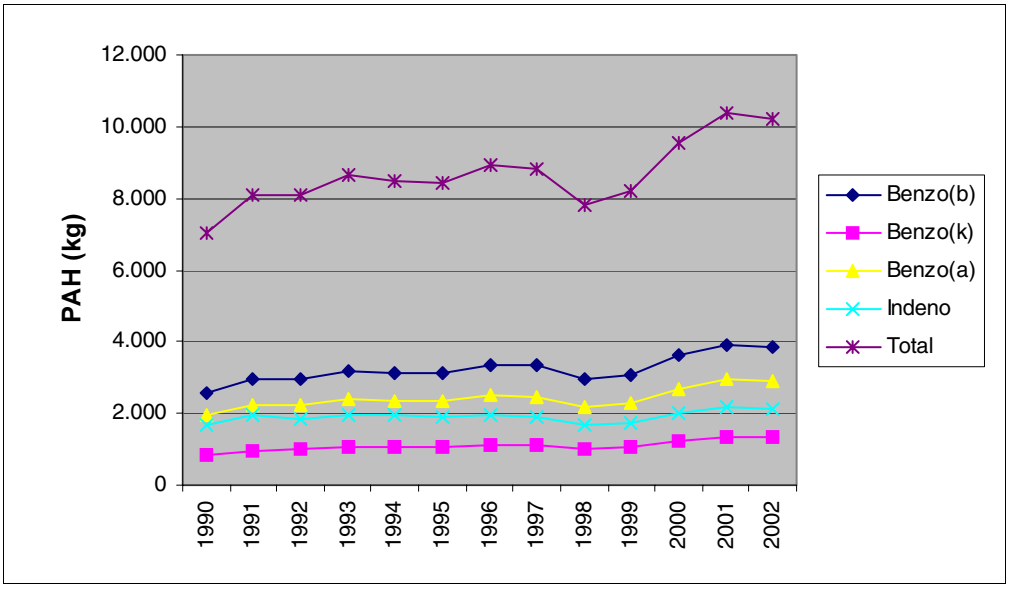


Figure 2.7 PAH emissions. Time-series for 1990 to 2003.

Particulate Matter

The particulate matter (PM) emission inventory has been reported for the years 2000-2003. 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 ($PM_{2.5}$).

The largest $PM_{2.5}$ emission sources are the residential sector (47%), road traffic (19%) and other mobile sources (17%). For the latter the most important source is off-road vehicles and machinery in the agricultural/forestry sector (58%). For the transport sector exhaust emissions account for the major part (82%).

The largest TSP emission sources are the agricultural sector and the residential sector. The TSP emissions from transport are also important and include both exhaust emissions and the non-exhaust emissions from brake and tyre wear and road abrasion. The non-exhaust emissions account for 24% of the TSP emission from transport.

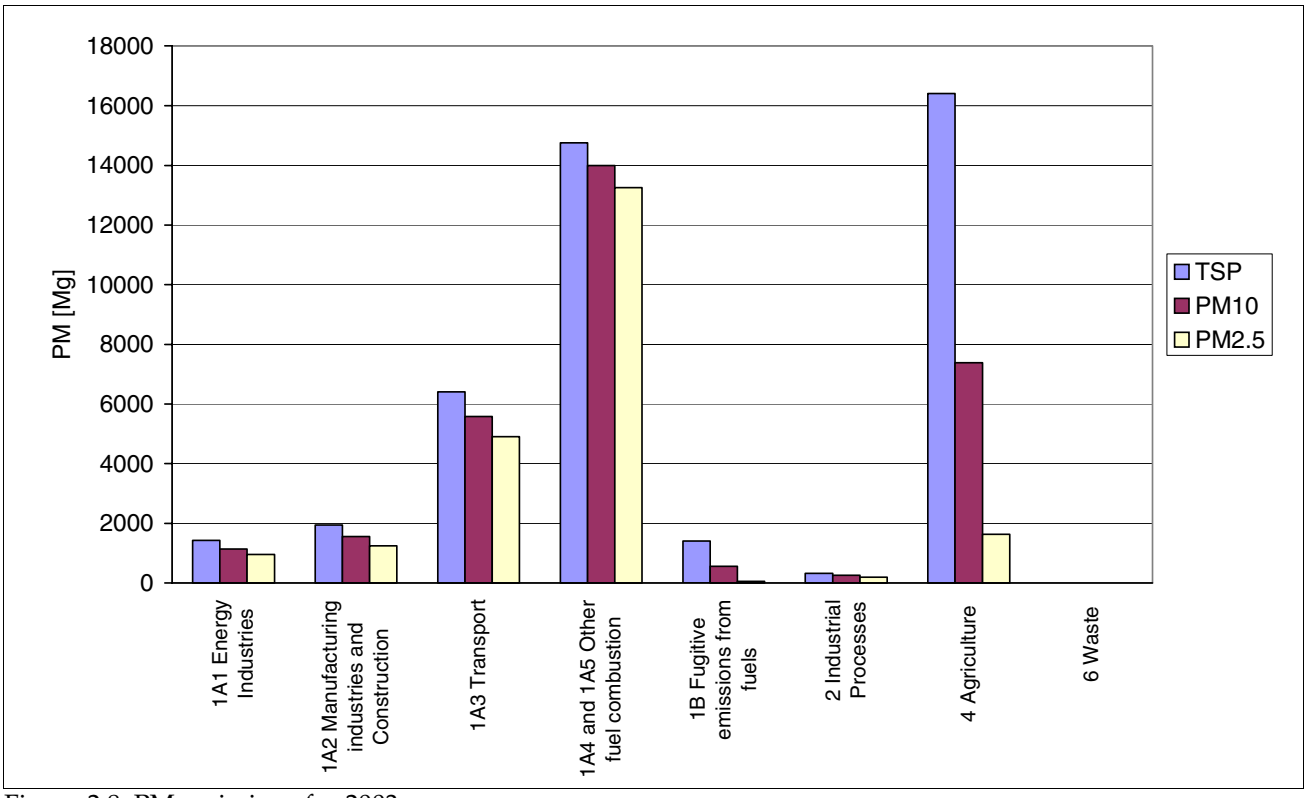


Figure 2.8. PM emissions for 2003.

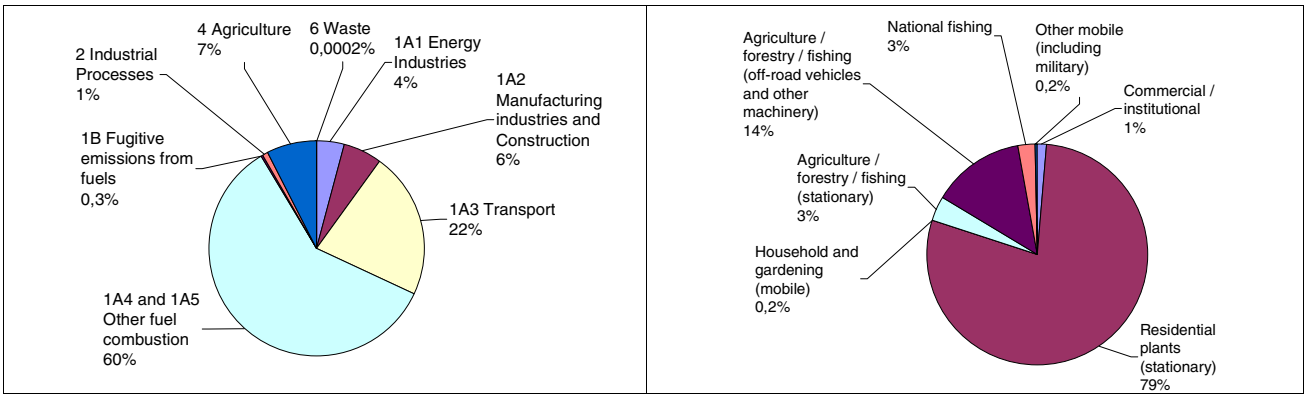


Figure 2.9. $PM_{2.5}$ emissions. Distribution on main sectors and on sub-sectors for other fuels combustion for 2003.

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 span from 15% 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 a gradual shift towards unleaded gasoline being essential for catalyst cars.

Tabel 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
2003	760	583	1231	8804	1240	10567	4656	2113	23267
Reduction in %	50	50	81	15	64	58	96	53	36

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.

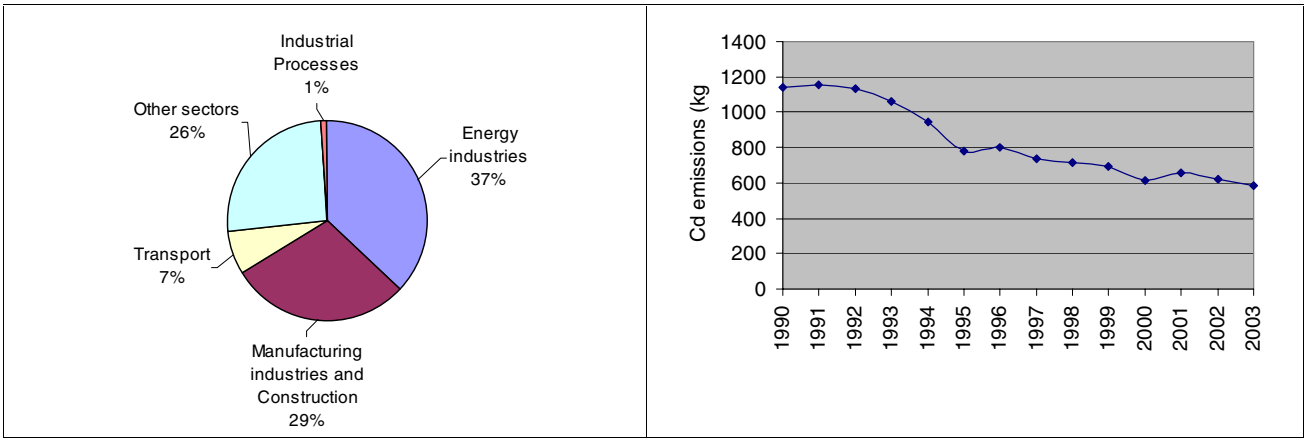


Figure 2.10 Cd emissions. Time-series for 1990 to 2003 and distribution on main sectors for 2003.

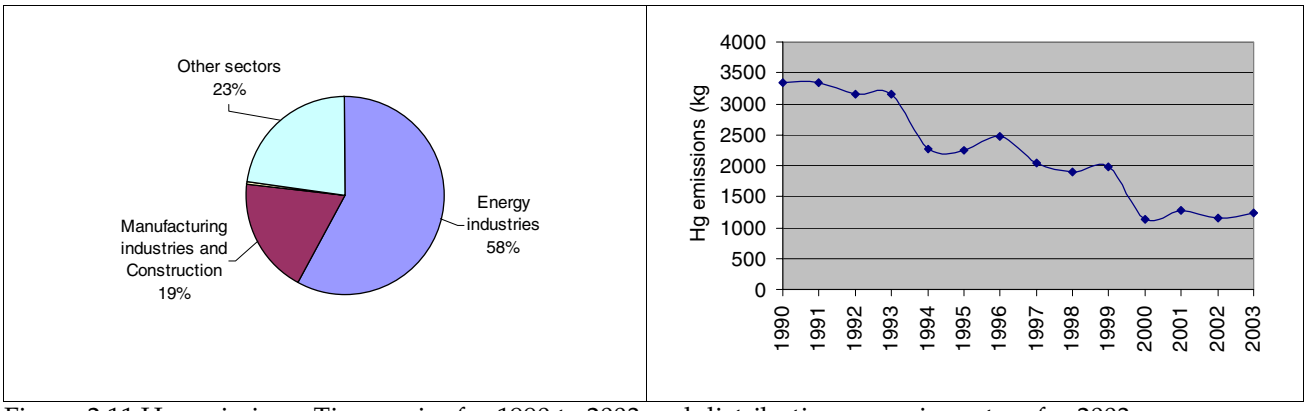


Figure 2.11 Hg emissions. Time-series for 1990 to 2003 and distribution on main sectors for 2003.

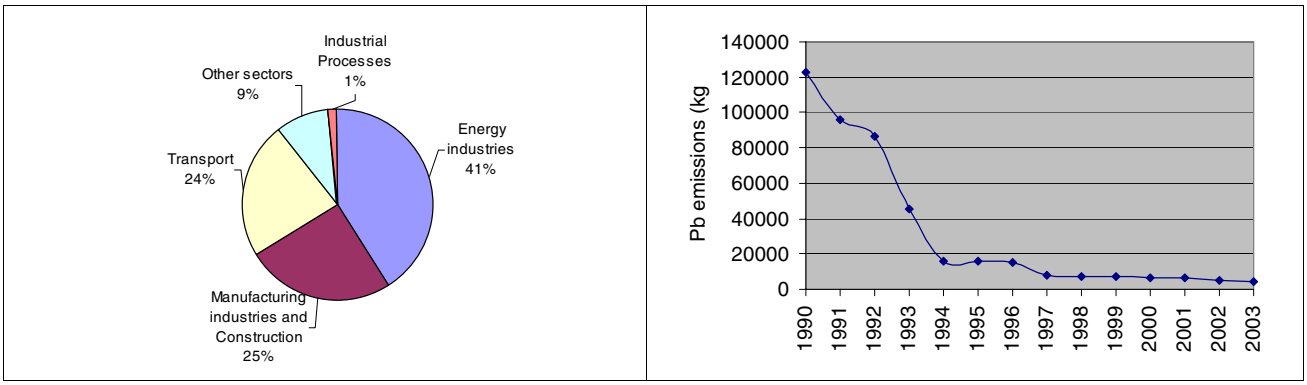


Figure 2.12 Pb emissions. Time-series for 1990 to 2003 and distribution on main sectors for 2003.

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)

Though industrial combustion is part of the stationary combustion detailed documentation for some of the specific industries is discussed in the industry chapters. 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*.

Table 3.1 shows detailed source categories for the energy sector and plant category in which the sector is discussed in this report.

Table 3.1 NFR source categories for the energy sector.

NFR id	NFR sector name	NERI documentation
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, Industry
1A2d	Pulp, Paper and Print	Stationary combustion, Industry
1A2e	Food Processing, Beverages and Tobacco	Stationary combustion, Industry
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 3.2 SO_2, NO_X, NMVOC, CO and PM emission from the energy sector, 2003

	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	64,51	12,63	4,26	17,46	1432	1141	953
1A2 Manufacturing industries and Construction	24,06	23,09	3,73	6,05	1949	1564	1245
1A3 Transport	77,86	295,83	43,59	2,24	6408	5589	4903
1A4 Other Sectors	38,92	228,64	22,59	4,85	14728	13970	13224
1A5 Other	0,45	0,31	0,06	0,00	25	25	25
1B1 Fugitive Emissions from fuels, Solid Fuels	0,00	31,78	0,00	0,00	1404	562	56
1B2 Fugitive Emissions from fuels, Oil and Natural gas	2,83	0,24	14,89	0,34	2	2	2
Energy, Total	**208,63**	**592,52**	**89,12**	**30,95**	**25950**	**22853**	**20408**

Table 3.3 HM emissions from the energy sector, 2003

	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1A1 Energy Industries	1,91	0,21	0,72	0,46	0,50	0,62	3,33	1,03	13,34
1A2 Manufacturing industries and Construction	1,15	0,17	0,24	0,19	0,38	0,52	4,70	0,79	1,75
1A3 Transport	1,10	0,04	0,01	0,03	0,21	6,64	1,62	0,07	3,97
1A4 Other Sectors	0,35	0,15	0,28	0,08	0,14	0,93	0,93	0,22	3,55
1A5 Other	0,08	0,00	0,00	0,00	0,00	0,05	0,00	0,00	0,03
1B1 Fugitive Emissions from fuels, Solid Fuels	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1B2 Fugitive Emissions from fuels, Oil and Natural gas	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Energy, Total	**4,59**	**0,58**	**1,24**	**0,76**	**1,23**	**8,76**	**10,57**	**2,11**	**22,63**

Table 3.4 PAH and dioxin emission from the energy sector, 2003

	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	0,008	0,033	0,015	0,008
1A2 Manufacturing industries and Construction	1,93	0,029	0,097	0,020	0,009
1A3 Transport	1,51	0,048	0,067	0,074	0,057
1A4 Other Sectors	22,15	2,883	3,751	1,232	2,144
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	**30,29**	**2,968**	**3,948**	**1,340**	**2,218**

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 are enclosed in Annex 2A.

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) according the CORINAIR system. The emission inventories are prepared from a complete emission database based on the SNAP sectors. Aggregation to the NFR sector codes is based on a correspondence list between SNAP and NFR enclosed in Annex 2A. 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 included in tables and figures in Chapter 3.2 only include 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 element of the source.

3.2.1.2 Fuel consumption

In 2003 total fuel consumption for stationary combustion plants was 622 PJ of which 537 PJ was fossil fuels.

Fuel consumption distributed on the stationary combustion subsectors is shown in Figure 3.1 and Figure 3.2. The majority - 64% - of all fuels is combusted in the sector, *Public electricity and heat production.* Other sectors with high fuel consumption are *Residential* and *Industry*.

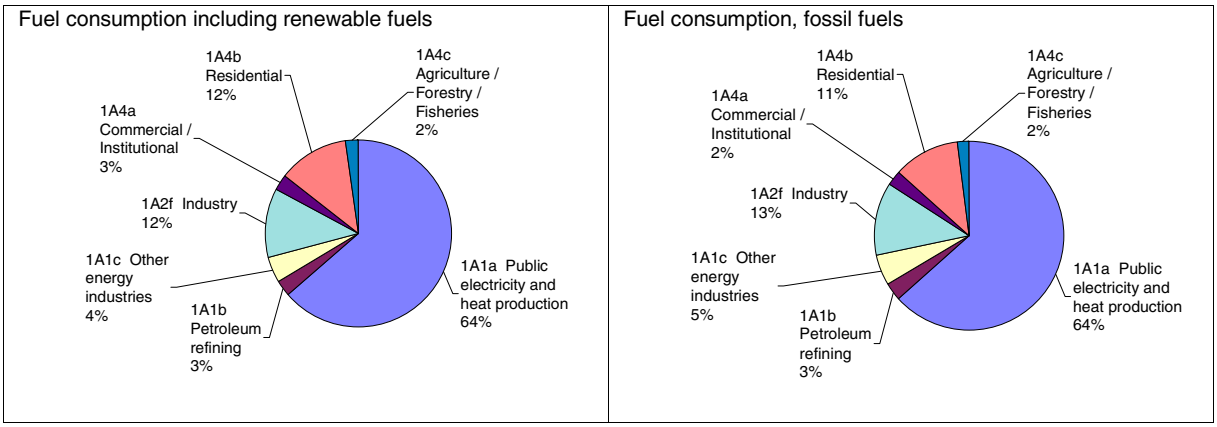


Figure 3.1 Fuel consumption rate of stationary combustion, 2003 (based on DEA 2004a)

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.

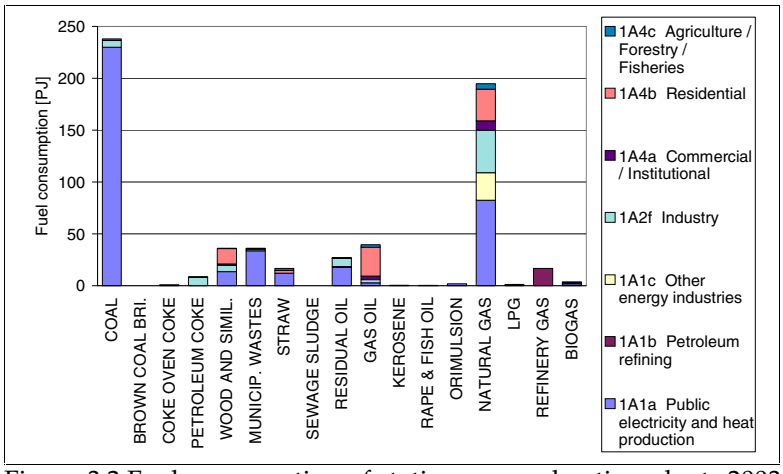


Figure 3.2 Fuel consumption of stationary combustion plants 2003 (based on DEA 2004a).

Fuel consumption time-series for stationary combustion plants are presented in Figure 3.3. The total fuel consumption has increased by 25% from 1990 to 2003, while the fossil fuel consumption has only increased by 18%. The consumption of natural gas and renewable fuels has increased since 1990 whereas coal consumption has decreased.

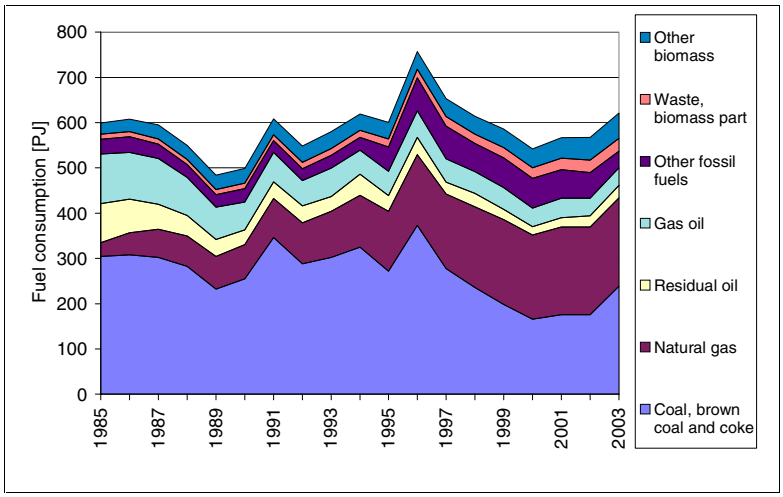


Figure 3.3 Fuel consumption time-series, stationary combustion (based on DEA 2004a)

The fluctuations in the time-series for fuel consumption are a result mainly of electricity import/export activity, but also of outdoor temperature variations from year to year. This, in turn, leads to fluctuations in emission levels. The fluctuations in electricity trade, fuel consumption and NO_x emission are illustrated and compared in Figure 3.4. 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 2003 the net electricity export was 30760 TJ which is much higher than in 2002. The high electricity export in 2003 is a result of low rainfall in Norway and Sweden causing insufficient hydropower production in both countries.

To be able to follow the national energy consumption as well as 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 ambient temperature. This fuel consumption trend is also illustrated in Figure 3.4. The corrections are included here to explain the fluctuations in the emission time-series.

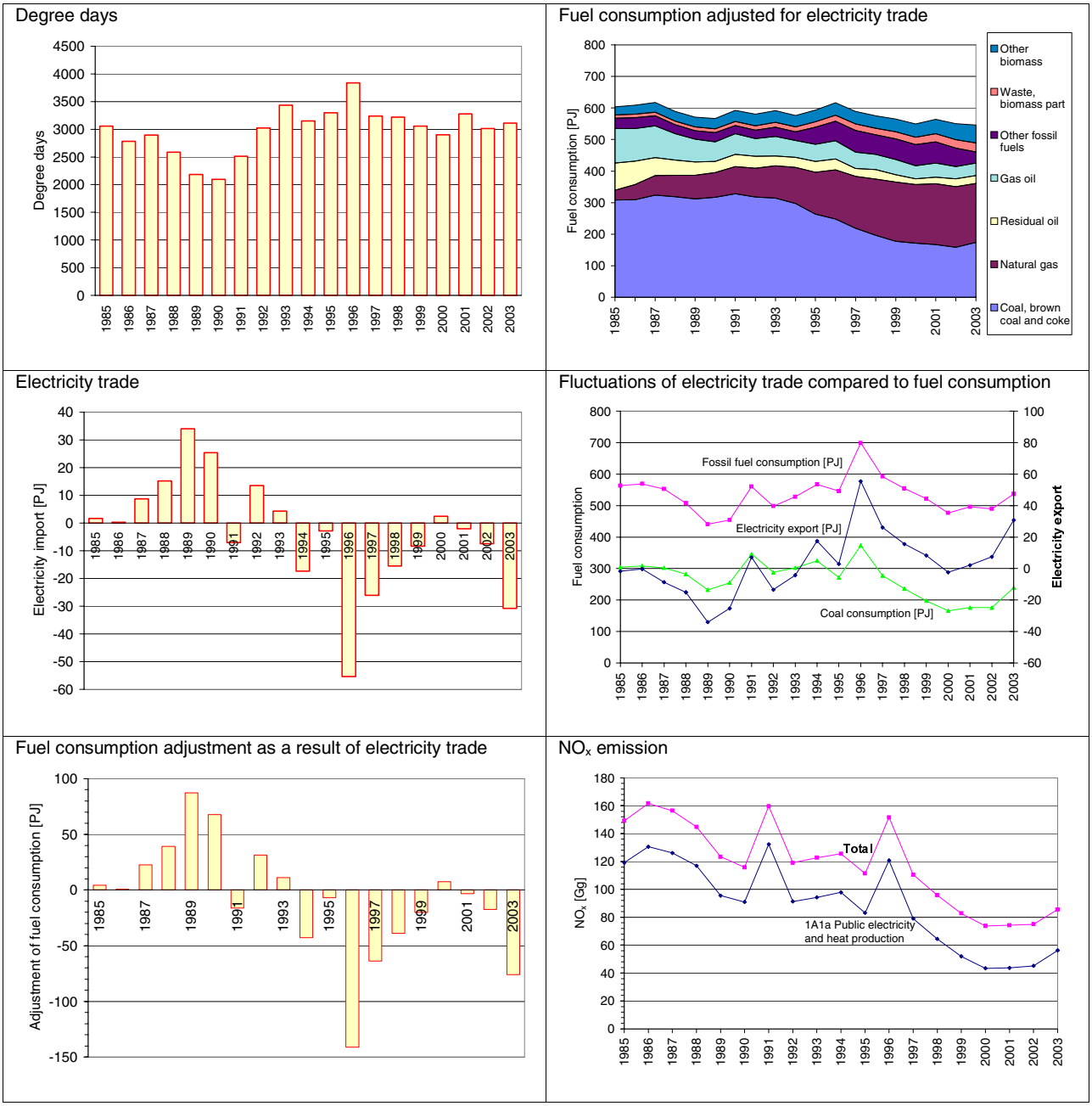


Figure 3.4 Comparison of time-series fluctuations for electricity trade, fuel consumption and NO_x emission (DEA 2004b).

3.2.1.3 Emissions

SO_2

Stationary combustion is the most important emission source for SO_2 accounting for 87% of the total Danish emission. Table 3.5 shows the SO_2 emission inventory for the stationary combustion subsectors.

Electricity and heat production is the largest emission source accounting for 63% of the emission, however, the SO_2 emission share is almost the same as the fuel consumption share for this sector, which is 64%. This is possible due to effective flue gas desulphurisation equipment installed in

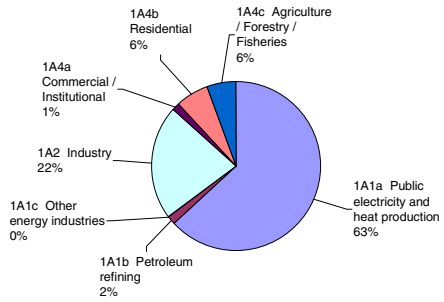
power plants combusting coal. The main part (83%) of the emission in the subsector originates from power plants >300MW_{th}.

The SO_2 emission from *Industry* is 22%, a remarkably high emission share compared with fuel consumption. The main emission sources in the industrial sector are combustion of coal and residual oil, but emissions from the cement industry is also a considerable emission source.

Time-series for SO_2 emission from stationary combustion are shown in Figure 3.5. The SO_2 emission from stationary combustion plants has decreased by 94% from 1980 and 78% from 1995. The large emission decrease is mainly a result of the reduced emission from *Electricity and heat production*, made possible due to installation of desulphurisation plants and due to the use of fuels with lower sulphur content.

Table 3.5 SO_2 emission from stationary combustion plants 2003 [1)]

SO_2	2003	
1A1a Public electricity and heat production	16958	Mg
1A1b Petroleum refining	495	Mg
1A1c Other energy industries	9	Mg
1A2 Industry	5851	Mg
1A4a Commercial / Institutional	364	Mg
1A4b Residential	1738	Mg
1A4c Agriculture / Forestry / Fisheries	1511	Mg
Total	**26924**	**Mg**



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

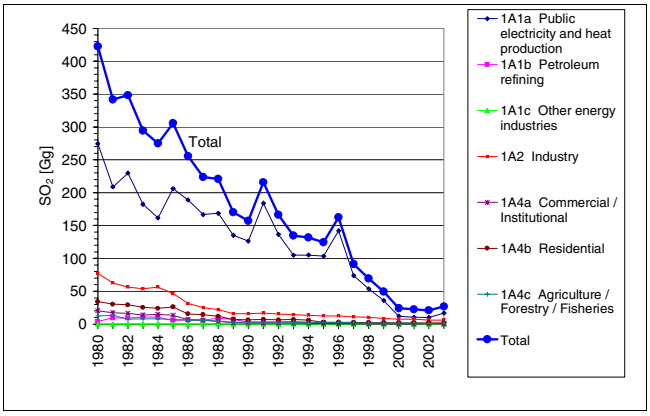


Figure 3.5 SO_2 emission time-series for stationary combustion

NO_X

Stationary combustion accounts for 41% of the total Danish NO_X emission. Table 3.6 shows the NO_X emission inventory for stationary combustion subsectors.

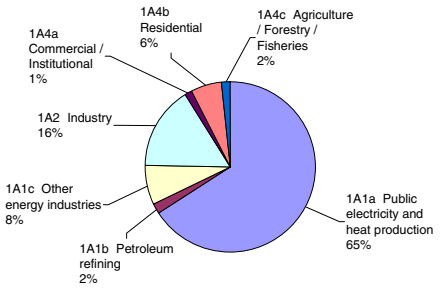
Electricity and heat production is the largest emission source accounting for 65% of the emission from stationary combustion plants. Power plants >50MW_{th} are the main emission source in this sector accounting for 78% of the emission.

Industrial combustion plants are also an important emission source accounting for 16% of the emission. The main industrial emission source is cement production, accounting for 63% of the emission.

Time-series for NO_x emission from stationary combustion are shown in Figure 3.6. NO_x emission from stationary combustion plants has decreased by 43% from 1985 and 23% 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 in the time-series follow the fluctuations in *Electricity and heat production*, which, in turn, result from electricity trade fluctuations.

Table 3.6 NO_x emission from stationary combustion plants 2003 [1)]

	2003	
1A1a Public electricity and heat production	56247	Mg
1A1b Petroleum refining	1645	Mg
1A1c Other energy industries	6615	Mg
1A2 Industry	13419	Mg
1A4a Commercial / Institutional	1245	Mg
1A4b Residential	4865	Mg
1A4c Agriculture / Forestry / Fisheries	1544	Mg
Total	**85581**	**Mg**



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

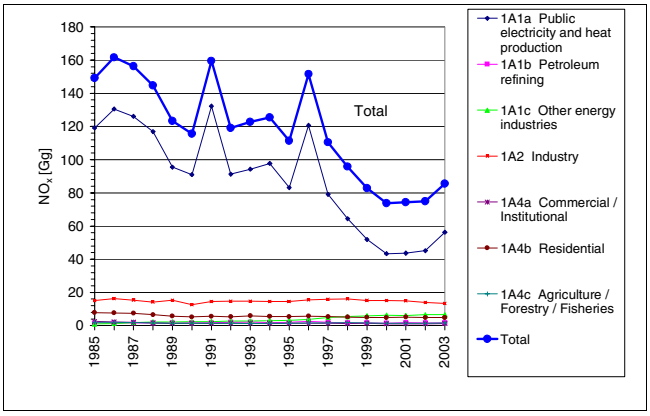


Figure 3.6 NO_x emission time-series for stationary combustion

NMVOC

Stationary combustion plants account for 12% of the total Danish NMVOC emission. Table 3.7 shows the NMVOC emission inventory for the stationary combustion subsectors.

Residential plants are the largest emission source accounting for 60% of the total emission from stationary combustion plants. For residential plants NMVOC is mainly emitted from wood and straw combustion, see Figure 3.7.

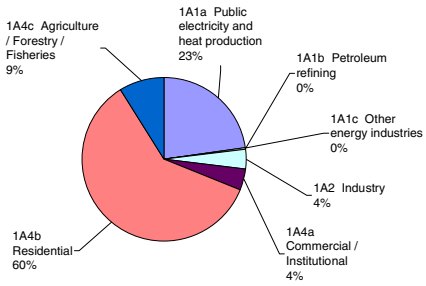
Electricity and heat production is also a considerable emission source, accounting for 23% of the total emission. Lean-burn gas engines have a relatively high NMVOC emission factor and are the most important emission source in this subsector. The gas engines are either natural gas or biogas fuelled.

Time-series for NMVOC emission from stationary combustion are shown in Figure 3.8. The emission has increased by 43% from 1985 and 15% 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 23% higher in 2003 than in 1990, but the NMVOC emission from wood combustion almost doubled since 1990 due to increased wood consumption. However the emission from straw combustion in farmhouse boilers has decreased over this period.

Table 3.7 NMVOC emission from stationary combustion plants 2003 [1)]

	2003	
1A1a Public electricity and heat production	4222	Mg
1A1b Petroleum refining	2	Mg
1A1c Other energy industries	39	Mg
1A2 Industry	721	Mg
1A4a Commercial / Institutional	751	Mg
1A4b Residential	11115	Mg
1A4c Agriculture / Forestry / Fisheries	1629	Mg
Total	**18478**	**Mg**



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

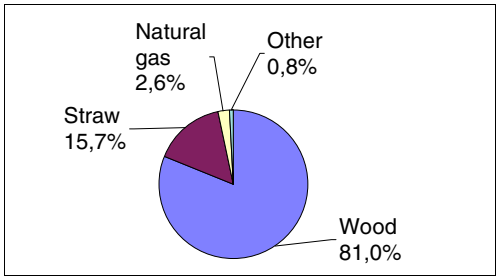


Figure 3.7 NMVOC emission from residential plants, 2003

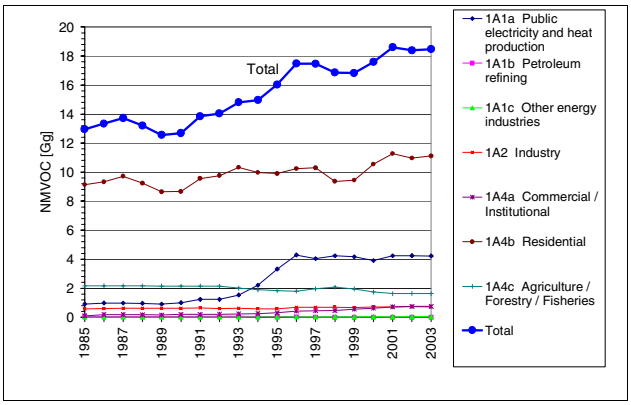


Figure 3.8 NMVOC emission time-series for stationary combustion

CO

Stationary combustion accounts for 31% of the total Danish CO emission. Table 3.8 presents the CO emission inventory for stationary combustion subsectors.

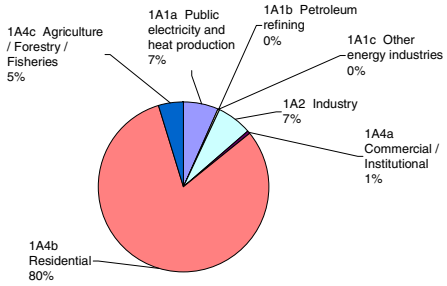
Residential plants are the largest emission source, accounting for 80% of the emission. Wood combustion accounts for 90% of the emission from residential plants, see Figure 3.9. This is in spite of the fact that the fuel consumption share is only 19%. Combustion of straw is also a considerable emission source whereas the emission from other fuels used in residential plants is almost negligible.

Time-series for CO emission from stationary combustion are shown in Figure 3.10. The emission has increased by 2% from 1985 and decreased 3% from 1995. The time-series for CO from stationary combustion plants follows the time-series for CO emission from residential plants.

The consumption of wood in residential plants has increased by 68% since 1990 leading to an increase in the CO emission. The increase in CO emission from residential plants is lower 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 3.8 CO emission from stationary combustion plants 2003 [1)]

	2003	
1A1a Public electricity and heat production	12205	Mg
1A1b Petroleum refining	242	Mg
1A1c Other energy industries	183	Mg
1A2 Industry	12308	Mg
1A4a Commercial / Institutional	937	Mg
1A4b Residential	149242	Mg
1A4c Agriculture / Forestry / Fisheries	8599	Mg
Total	**183715**	Mg



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

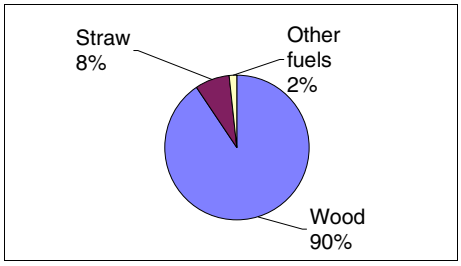


Figure 3.9 CO emission sources, residential plants, 2003

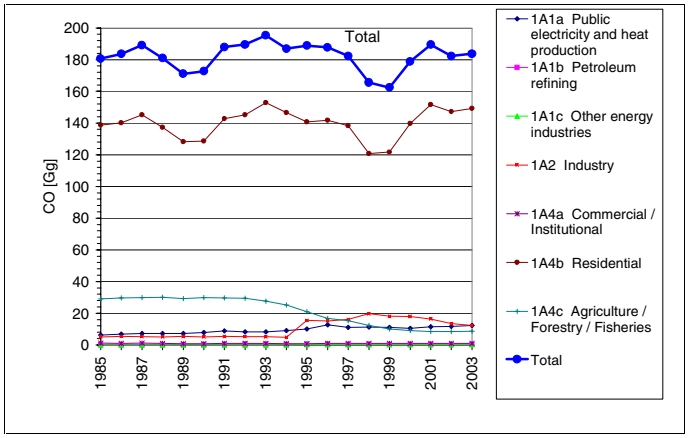


Figure 3.10 CO emission time-series for stationary combustion

PM

To date, only PM emissions from stationary combustion, transport, agriculture and part of the industrial sector have been included in the Danish inventory. TSP from stationary combustion accounts for 35% of the total Danish emission. The emission shares for PM_{10} and $PM_{2.5}$ are 44% and 56%, respectively.

Table 3.9 shows the PM emission inventory for the stationary combustion subsectors. Residential plants are the largest emission source accounting for 84% of the $PM_{2.5}$ emission from stationary combustion plants.

The primary sources of PM emissions 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 78% of the $PM_{2.5}$ emission from stationary combustion is emitted from residential wood combustion. This corresponds to 43% of the overall Danish emission. Wood combustion accounts for 92% of the $PM_{2.5}$ emission from residential plants in spite of the limited wood consumption share.

A literature review (Nielsen et al. 2003) and a Nordic Project (Sternhufvud et al. 2004) has demonstrated that the emission factor uncertainty for residential combustion of wood in stoves and boilers is extremely high.

Emission inventories for PM have only been reported for the years 2000-2003 and the emission level has not changed considerably in this period.

Table 3.9 PM emission from stationary combustion plants, 2003

	TSP	PM_{10}	$PM_{2.5}$	
1A1a Public electricity and heat production	1301	1020	837	Mg
1A1b Petroleum refining	128	119	115	Mg
1A1c Other energy industries	3	2	1	Mg
1A2 Industry	1023	683	407	Mg
1A4a Commercial / Institutional	192	185	172	Mg
1A4b Residential	11601	11005	10417	Mg
1A4c Agriculture / Forestry / Fisheries	529	493	459	Mg
Total	**14779**	**13507**	**12409**	Mg

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

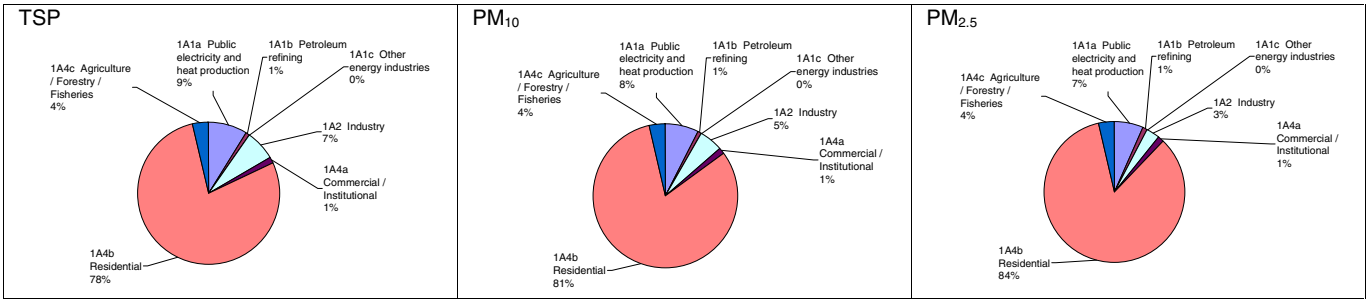


Figure 3.11 PM emission sources, stationary combustion plants, 2003

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 2003 emissions are presented in Table 3.10.

Stationary combustion plants are the most important emission sources for heavy metals. For Cu the emission share from stationary combustion plants is 11%, but for all other heavy metals the emission share is more than 70%.

The sectors *Electricity and heat production* and *Industry* have the highest emission shares. *Electricity and heat production* accounts for 55%, 38% and 58% of the emission of the priority metals Pb, Cd and Hg, respectively.

Table 3.10 Heavy metal emission from stationary combustion plants, 2003 [1)]

	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	
1A1a Public electricity and heat production	446	203	473	603	712	2743	1885	1016	13336	kg
1A1b Petroleum refining	13	12	30	12	4	582	21	11	3	kg
1A1c Other energy industries	0	0	0	0	0	0	0	0	0	kg
1A2 Industry	193	168	368	177	237	4684	1154	791	1542	kg
1A4a Commercial / Institutional	15	20	44	57	94	169	154	19	554	kg
1A4b Residential	35	111	30	140	155	52	129	130	2392	kg
1A4c Agriculture / Forestry / Fisheries	21	15	38	23	24	600	43	24	85	kg
Total	**722**	**529**	**984**	**1012**	**1225**	**8831**	**3387**	**1992**	**17912**	**kg**

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

Time-series for heavy metal emissions are provided in Figure 3.12. Heavy metal emissions have decreased considerably since 1990. Table 3.11 shows the decrease of each heavy metal since 1990. Emissions have decreased despite increased incineration of municipal waste. This has been made possible due to installation and improved performance of gas cleaning devices in waste incineration plants and also in large power plants, the latter a further important emission source.

Table 3.11 Decrease of heavy metal emission 1990-2003

Pollutant	Decrease since 1990
As	50%
Cd	50%
Cr	84%
Cu	72%
Hg	60%
Ni	59%
Pb	78%
Se	54%
Zn	7%

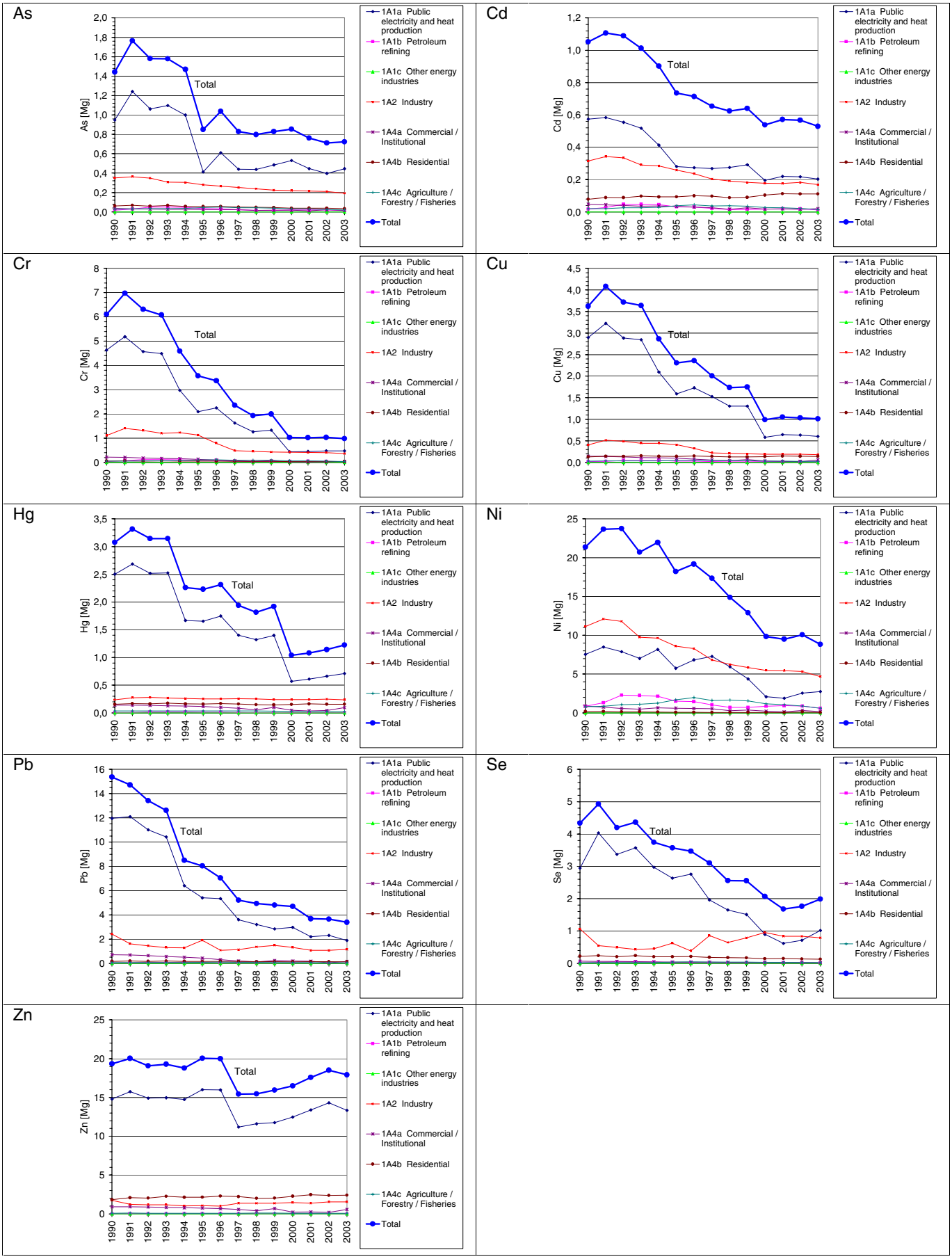


Figure 3.12 Heavy metal emission time-series, stationary combustion plants

PAH

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). Stationary combustion plants account for more than 90% of the PAH emissions.

Table 3.12 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 98% 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 provided in Figure 3.14.

Table 3.12 PAH emission from stationary combustion plants, 2003

	Benzo(a)-pyrene Mg	Benzo(b)-fluoranthene Mg	Benzo(k)-fluoranthene Mg	Indeno(1,2,3-c,d)pyrene Mg
1A1a Public electricity and heat production	8	32	15	8
1A1b Petroleum refining	0	0	0	0
1A1c Other energy industries	0	0	0	0
1A2 Industry	26	92	16	7
1A4a Commercial / Institutional	165	217	72	117
1A4b Residential	2574	3372	1124	1816
1A4c Agriculture / Forestry / Fisheries	140	153	27	205
Total	**2913**	**3867**	**1254**	**2154**

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

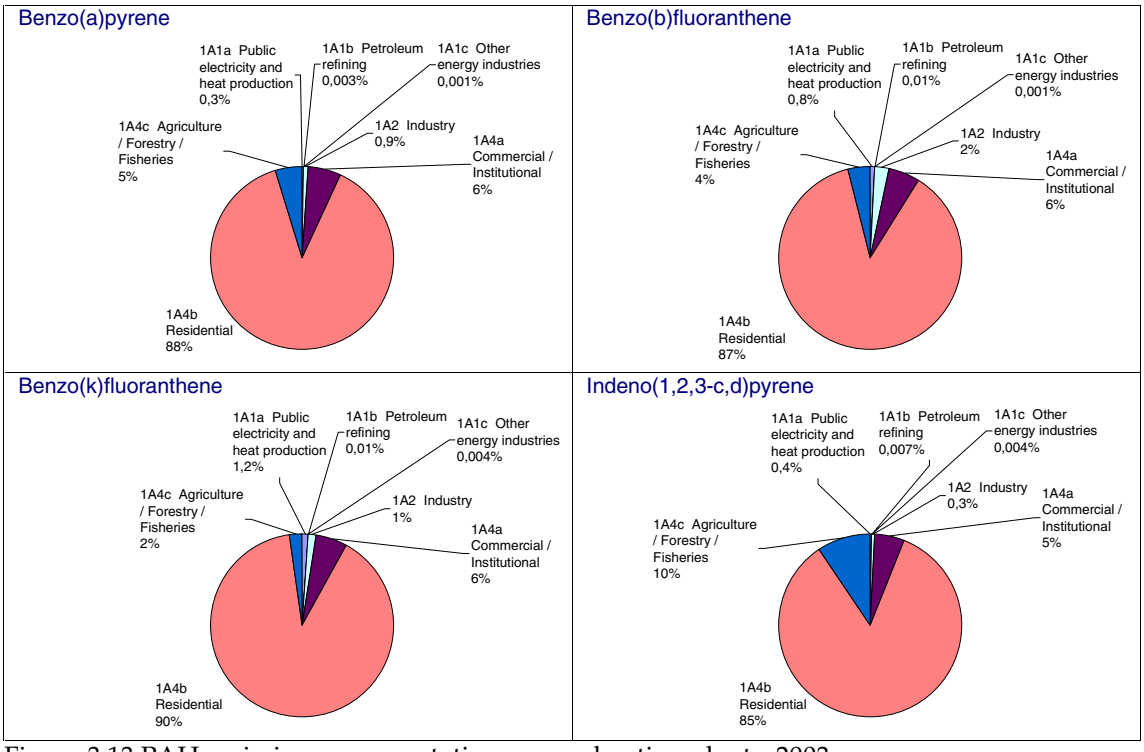


Figure 3.13 PAH emission sources, stationary combustion plants, 2003

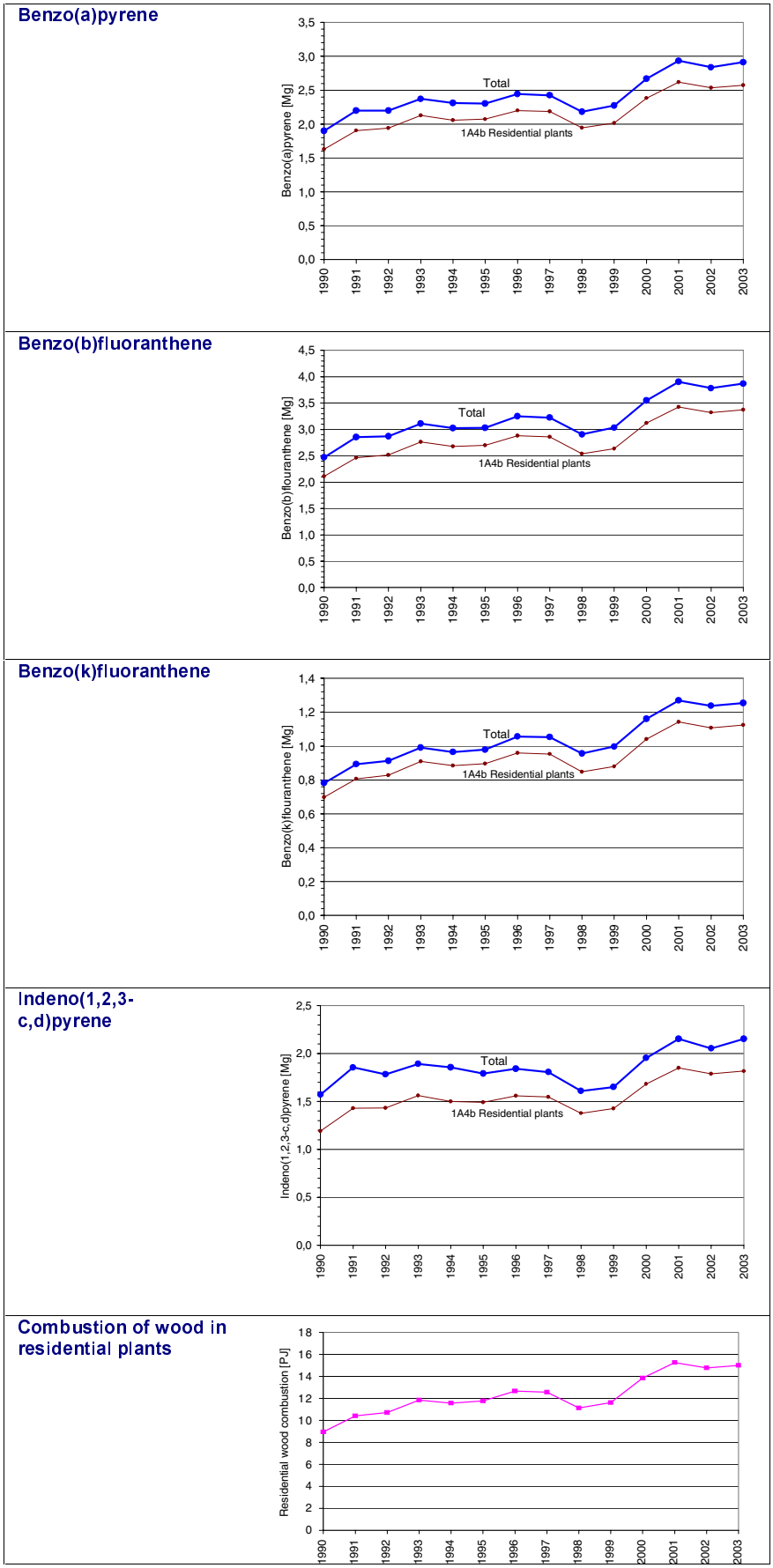


Figure 3.14 PAH emission time-series, stationary combustion plants. Comparison with wood consumption in residential plants.

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 2004). Emission data are stored in an Access database, from which data are transferred to the reporting formats.

The emission inventory for stationary combustion is based on activity rates from the Danish energy statistics. General emission factors for various fuels, plants and sectors have been determined. Some large plants, such as 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 such as power plants, industrial plants and refineries are included as large point sources in the Danish emission database. Each point source may 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 2003, 70 stationary combustion plants are specified as large point sources. These point sources include:

- Power plants and decentralised CHP plants (combined heat and power plants)
- Municipal waste incineration plants
- Large industrial combustion plants
- Petroleum refining plants

The fuel consumption of stationary combustion plants registered as large point sources is 414 PJ (2003). This corresponds to 67% of the overall fuel consumption for stationary combustion.

Further details about the large point sources are shown in Annex 2A. The number of large point sources registered in the databases increased from 1990 to 2003. In the emission databases for the years before 1990 only one large point source have been registered.

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

- Annual environmental reports
- Annual plant-specific reporting of SO_2 and NO_X from power plants >25MW_e prepared for the Danish Energy Authority due to Danish legislatory requirement
- Emission data reported by Elsam and E2, the two major electricity suppliers
- Emission data reported from industrial plants

Annual environmental reports for 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 have potentially 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 such as 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 on emission factors is provided 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 2004a). Some fuel types in the official Danish energy statistics are added to obtain a less detailed fuel aggregation level, see Annex 2A. The calorific values on which the energy statistics are based are also enclosed in Annex 2A.

The fuel consumption of the NFR sector *1A2 Manufacturing industries and construction* (corresponding to SNAP sector *03 Combustion in manufacturing industries)* is not disaggregated into specific industries in the NERI emission database. So far disaggregation into specific industries is only estimated for the reportings to the Climate Convention. Disaggregation for the LRTAP Convention reportings is planned for next year.

Both traded and non-traded fuels are included in the Danish energy statistics. Thus, for example, estimation of the annual consumption of non-traded wood is included.

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

The Danish Energy Authority (DEA) compiles a database for the fuel consumption of each district heating and power-producing plant, based on data reported by plant operators. The fuel consumption of large point sources specified in the Danish emission database refers to the DEA database (DEA 2004c).

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 have 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. The fuels used for non-energy purposes add up to less than 2% of the total fuel consumption in Denmark.

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 category (sector and e.g. type of plant) a set of general area source emission factors has been determined. The emission factors are either nationally referenced or based on the international guidebooks: EMEP/Corinair Guidebook (EMEP/Corinair 2004) and IPCC Reference Manual (IPCC 1996).

A complete list of emission factors for 2003, time-series for emission factors and detailed references are enclosed in Annex 2A. The area source emission factors 2003 for SO_2, NO_X, NMVOC and CO are shown in Table 3.13.

Table 3.13 SO_2, NO_X, NMVOC and CO emission factors 2003

Fuel	NFR sector	SNAP	SO_2 [g/GJ]	NO_X [g/GJ]	NMVOC [g/GJ]	CO [g/GJ]
COAL	1A1a	010101, 010102, 010103	61	144	1,5	10
COAL	1A1a, 1A2f, 1A4c	010202, 010203, 0301, 0203	574	95	15	10
COAL	1A4b	0202	574	95	15	2000
BROWN COAL BRI.	1A4b	0202	574	95	15	2000
COKE OVEN COKE	1A2f	0301	574	95	15	10
COKE OVEN COKE	1A4b	0202	574	95	15	2000
PETROLEUM COKE	1A2f	0301	605	95	1,5	61
PETROLEUM COKE	1A4a, 1A4b, 1A4c	0201, 0202, 0203	605	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, 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, 1A4c	010202, 010203, 030105, 020302	130	153	50	325
STRAW	1A4b, 1A4c	0201, 0203	130	153	600	4000
RESIDUAL OIL	1A1a	0101, 010101, 010102, 010103, 010104, 010105	290	144	3	15
RESIDUAL OIL	1A1a, 1A4a, 1A4b, 1A4c	010202, 010203, 0201, 0202, 0203, 020302	344	142	3	30
RESIDUAL OIL	1A1b	010306	537	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	1A4c	020304	344	142	3	100
GAS OIL	1A1a	0101, 010101, 010102	23	249	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	010103	23	65	1,5	15
GAS OIL	1A1a, 1A1b, 1A2f	010202, 010203, 010306, 0301, 030102, 030103, 030106	23	65	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	010103	1	220	1,5	15
FISH & RAPE OIL	1A1a	010202, 010203	1	65	1,5	15
FISH & RAPE OIL	1A2f, 1A4c	030105, 020304	1	700	100	100
ORIMULSION	1A1a	010101	12	86	3	15
NATURAL GAS	1A1a	0101, 010101, 010102	0,3	115	2	15
NATURAL GAS	1A1a, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 030104, 020104, 020303	0,3	124	1,4	6,2
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 010505, 030105, 020105, 020204, 020304	0,3	168	117	175
NATURAL GAS	1A1a, 1A2f	010103, 010202, 010203, 0301, 030103, 030106	0,3	42	2	28
NATURAL GAS	1A1c	010504	0,3	250	1,4	6,2
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	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	010304	1	170	1,4	6,2
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	010102, 010103, 010203, 0301, 0201, 020103, 0203	25	28	4	36
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	19,2	540	14	273
BIOGAS	1A2f	030102	25	54	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

SO_2 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 applied methodology for uncertainty estimates refers to Pulles & Aardenne 2001. 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 2003 as well as on uncertainties for fuel consumption and emission factors for each of the main SNAP sectors. For particulate matter 2000 is considered to be the 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 2001. 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 listed in Table 3.14. The uncertainty for fuel consumption in stationary combustion plants was assumed to be 2%.

Table 3.14 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 3.15. Detailed calculation sheets are shown in Annex 2A.

The total emission uncertainty is 7% for SO_2, 16% for NO_X, 38% for NMVOC and 43% for CO. For PM, heavy metals and PAH the uncertainty estimate is greater than 100%.

Table 3.15 Danish uncertainty estimates, 2003

Pollutant	Uncertainty Total emission	Trend 1990-2003	Uncertainty Trend
	[%]	[%]	[%-age points]
SO_2	7	-82,9	±0,5
NO_X	16	-26	±2
NMVOC	38	46	±15
CO	43	6,4	±4,1
TSP [1)]	417	-2,4	±7,3
PM_{10} [1)]	432	-3,3	±4,4
$PM_{2.5}$ [1)]	445	-3,2	±4,6
As	120	-50	±5
Cd	281	-50	±70
Cr	131	-84	±11
Cu	226	-72	±38
Hg	231	-60	±47
Ni	114	-59	±3
Pb	117	-78	±10
Se	109	-54	±13
Zn	185	-7	±22
Benzo(b)fluoranthene	968	57	±4
Benzo(k)fluoranthene	976	60	±29
Benzo(a)pyrene	988	53	±5
Indeno(1,2,3-c,d)	993	37	±9

1. The base year for PM is year 2000

3.2.4 Source specific QA/QC and verification

The elaboration of a formal QA/QC plan started in 2004. A first draft QA/QC plan (in Danish) for stationary combustion has been developed and this draft version is now applied as one of two sector specific QA/QC cases. Adaptation to the general QA/QC plan will be performed in 2005. The draft QA/QC plan is further discussed in Annex 2A. The draft QC plan is not implemented yet. This year the QC procedures applied are the same as those applied last year. The QC includes:

- Checking of time-series in the NFR and SNAP source categories. Considerable changes are controlled and explained.
- Comparison with the inventory of the previous year. Any major changes are verified.
- Total emission, when aggregated to LRTAP reporting tables, is compared with 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 IPCC reference approach validates the fuel consumption rates and CO_2 emissions of fuel combustion. Fuel consumption rates and CO_2 emissions differ by less than 1,5% (1990-2003).
- The emission from each large point source is compared with the emission reported the previous year.
- Some automated checks have been prepared for the emission databases:
  - Check of units for fuel rate, emission factor and plant specific emissions
  - Check of emission factors for large point sources. Emission factors for pollutants that are not plant-specific should be the same as those defined for area sources.
  - Additional checks on database consistency
- Most emission factor references are now incorporated in the emission database, itself.
- Annual environmental reports are kept for subsequent control of plant specific emission data.
- 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 certi-

fication for an environmental management system. Danish Gas Technology Centre and dk-Teknik[1] both run accredited laboratories for emission measurements.

3.2.5 Source specific recalculations

Improvements and recalculations since the 2004 emission inventory include:

- Update of fuel rates according to the latest energy statistics. The update included the years 1980-2002.
- A contract between NERI and the Danish Energy Authority specifying the content of the data supply for the emission inventory and deadlines have been signed.
- Brown coal and coke oven coke is not included in fuel category coal as in the former inventories.
- Improved emission factors for fish & rape oil have been estimated
- As a result of the first national external review a few emission factors have been improved. These changes do not change the estimated total emissions considerably.
- The PM emission factors for residential plants have been changed as a result of a Nordic project focussing on these factors.

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

3.2.6 Source specific planned improvements

The planned improvements of the inventory include:

1) Improved documentation for emission factors

Reporting of and references for the applied emission factors have been improved in the current year and will be further developed in future inventories.

2) QA/QC and validation

The QA/QC and validation of the inventories for stationary combustion will be implemented as part of the work that has been initiated for the Danish inventory as a whole. Implementation will start in 2005.

3) Uncertainty estimates

Uncertainty estimates are based mainly on default uncertainty levels for activity rates and emission factors. More country-specific uncertainty estimates will be incorporated in future inventories.

4) Other improvements

- The criteria for including a plant as a point source should be defined and the list of plants updated annually.
- HM emission factors should be compared to new Danish legislation and updated if relevant.

[1] Now part of FORCE

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

The emission inventory basis for mobile sources is fuel use information from the Danish energy statistics. In addition background data for road transport (fleet and mileage), air traffic (aircraft type, flight numbers, origin and destination airports) and non-road machinery (engine no., engine size, load factor and annual working hours) are used to make the emission estimates sufficiently detailed. Emission data mainly comes from the EMEP/CORINAIR Emission Inventory Guidebook, however, for railways specific Danish measurements are used.

In the Danish emission database all activity rates and emissions are defined in SNAP sector categories (Selected Nomenclature for Air Pollution) according to the CORINAIR system. The emission inventories are prepared from a complete emission database based on the SNAP sectors. The aggregation to the sector codes used for both the UNFCCC and UNECE Conventions is based on a correspondence list between SNAP and IPCC classification codes (NFR) shown in Table 3.16 (mobile sources only).

Table 3.16 SNAP – NFR correspondence table for transport

SNAP classification	IPCC 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

Military transport activities (land and air) refer to the NFR sector Other (1A5), while the Transport-Navigation sector (1A3d) comprises national sea transport (ship movements between two Danish ports) and small boats and pleasure crafts. The working machinery and materiel in industry is grouped in Industry-Other (1A2f), while agricultural and forestry machinery is accounted for in the Agriculture/forestry/fisheries (1A4c) sector together with fishing activities.

3.3.1 Source category description

The following description of source categories explains the development in fuel consumption and emissions for road transport and other mobile sources.

3.3.1.1 Fuel consumption

Table 3.17 Fuel use (PJ) for domestic transport in 2003 in NFR sectors

NFR ID	Fuel use (PJ)
Military (1A5)	1
Railways (1A3c)	3
Navigation (1A3d)	8
Agriculture/forestry/fisheries (1A4c)	25
Civil Aviation (1A3a)	2
Industry-other (1A2f)	10
Residential (1A4b)	1
Road (1A3b)	161
Total	212

Table 3.17 shows the fuel use for domestic transport based on DEA statistics for 2003 in NFR sectors. The fuel use figures in time-series 1990-2003 are given in Annex 2.B.13 (NFR format) and are shown for 1990 and 2003 in Annex 2.B.9 (CollectER format). Road transport has a major share of the fuel consumption for domestic transport. In 2003 this sector's fuel use share is 76%, while the fuel use shares for agriculture/forestry/fisheries and Industry-Other are 12 and 5%, respectively. For the remaining sectors the total fuel use share is 7%.

From 1985 to 2003 the diesel and gasoline fuel uses have increased with 27 and 29%, respectively, and in 2003 the fuel use shares for diesel and gasoline were 57 and 40%, respectively (Figures 3.15 and 3.16. Other fuels only have a 3% share of the domestic transport total, divided on 1% for each of the fuel types: jet fuel, LPG and residual oil. Almost all gasoline is used in road transportation vehicles. Gardening machinery and private boats and pleasure crafts are merely small consumers. Regarding diesel, there is a considerable fuel use in most of the domestic transport categories, whereas a more limited use of residual oil and jet fuel, respectively, is taking place in the fisheries/navigation sectors and by aviation (civil and military flights).

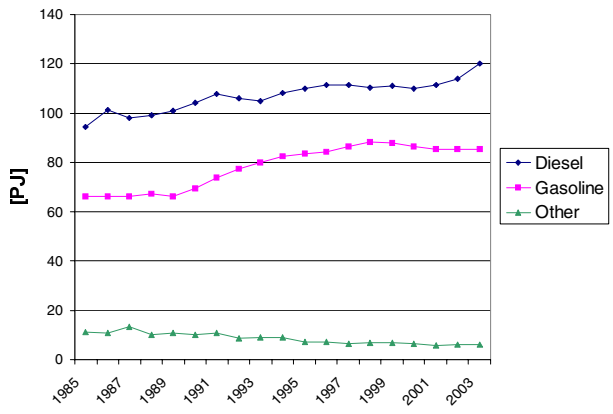


Figure 3.15 Fuel consumption per fuel type for domestic transport 1985-2003

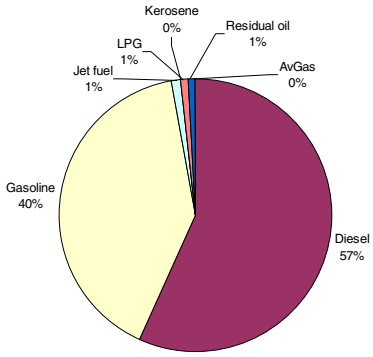


Figure 3.16 Fuel use share per fuel type for domestic transport in 2003

Road transport

As shown in Figure 3.17 the energy use for road transport has increased until 2000, where a small fuel use decline is noted. From 2001 onwards the fuel use increases, especially for the latest year, 2003. The fuel use development is due to a slight decrease in the use of gasoline fuels from 1999-

2002 combined with a steady growth in the diesel fuel use. Within sub-sectors passenger cars is the most fuel consuming vehicle category followed by heavy-duty vehicles, light duty vehicles and 2-wheelers in decreasing order (Figure 3.18).

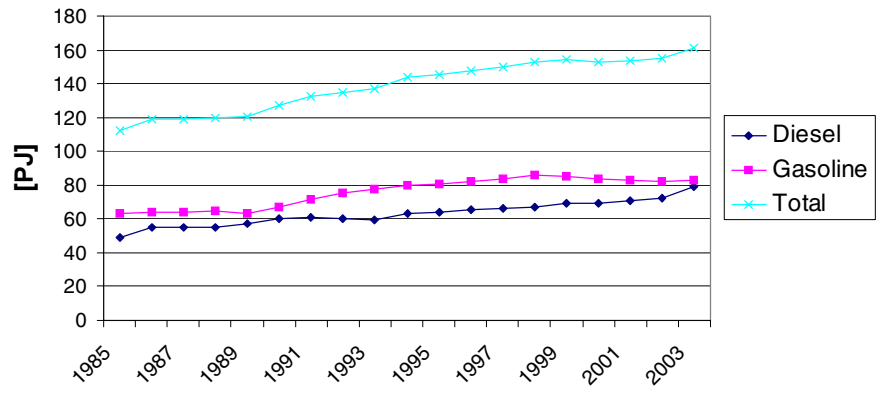


Figure 3.17 Fuel consumption per fuel type and as totals for road transport 1985-2003

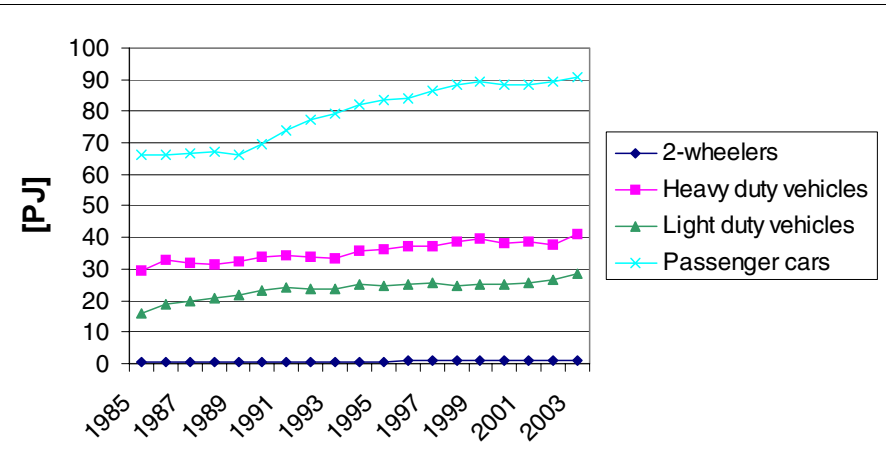


Figure 3.18 Total fuel consumption per vehicle type for road transport 1985-2003

As shown in Figure 3.19 the fuel use development for gasoline passenger cars dominates the total gasoline fuel use trend. The recent year's development in diesel fuel use (Figure 3.20) is character-ised by an increasing fuel use for diesel passenger cars and light duty vehicles, whereas the fuel use for trucks and buses (heavy-duty vehicles) has fluctuated since 1999. However, for the latter vehicle types the sudden fuel use increase in 2003 is very significant.

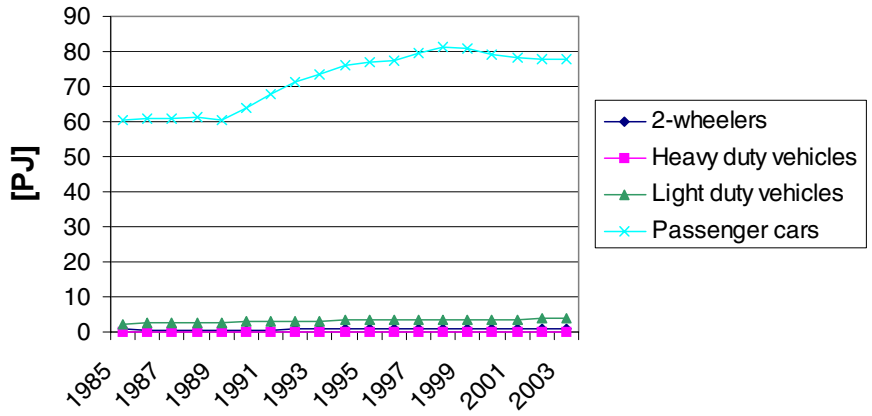


Figure 3.19 Gasoline fuel consumption per vehicle type for road transport 1985-2003

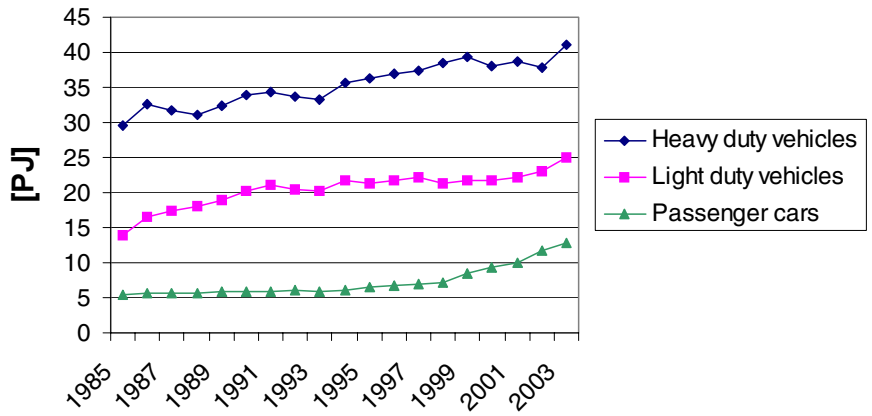


Figure 3.20 Diesel fuel consumption per vehicle type for road transport 1985-2003

In 2003 the fuel use shares for gasoline passenger cars, heavy-duty vehicles, diesel light duty vehicles, diesel passenger cars and gasoline light duty vehicles were 49, 25, 15, 8 and 2%, respectively (Figure 3.21).

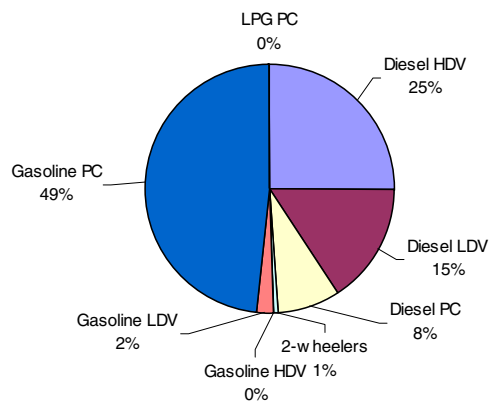


Figure 3.21 Fuel use share (PJ) per vehicle type for road transport in 2003

Other mobile sources

As explained in paragraph 1.2.1 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 less certain than for other mobile sectors. For these types of machinery the DEA statistical figures do not directly provide fuel use information.

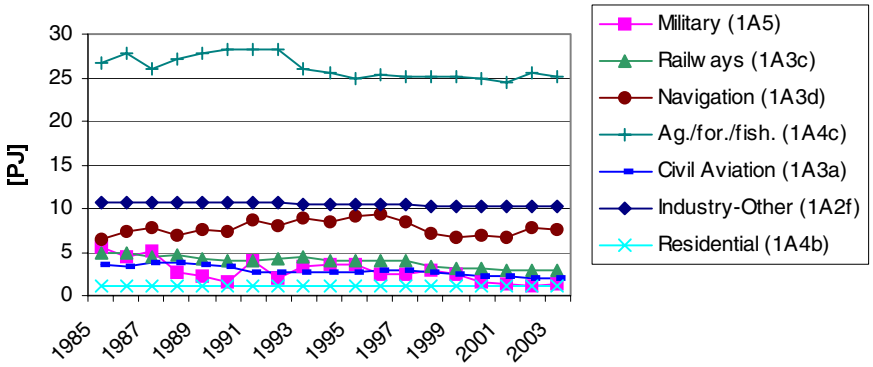


Figure 3.22 Total fuel use in NFR sectors for other mobile sources 1985-2003

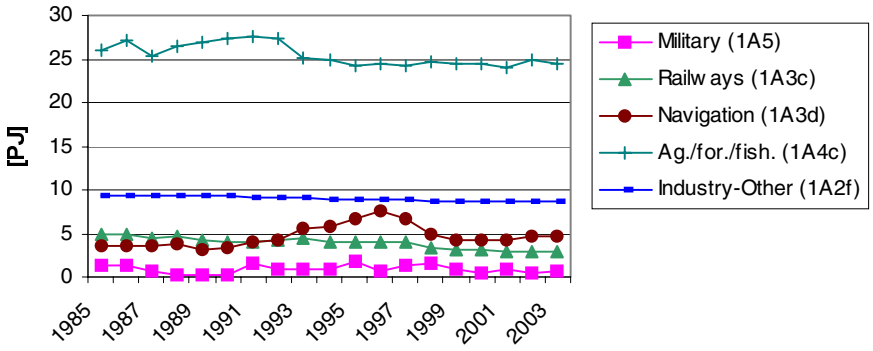


Figure 3.23 Diesel fuel use in NFR sectors for other mobile sources 1985-2003

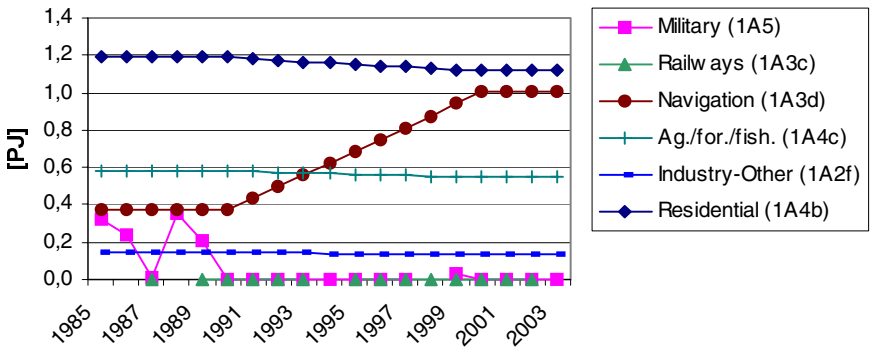


Figure 3.24 Gasoline fuel use in NFR sectors for other mobile sources 1985-2003

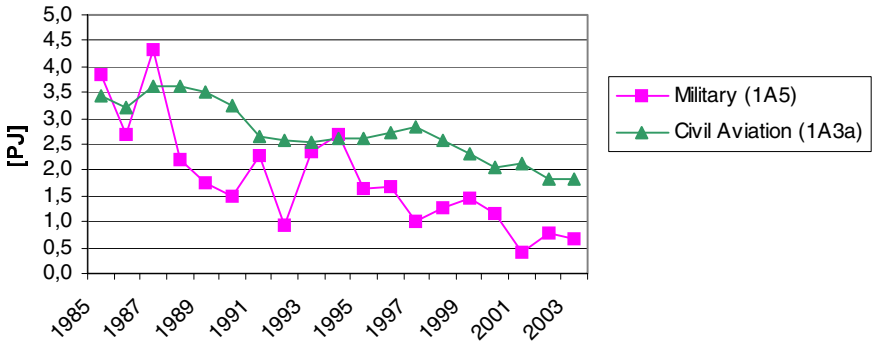


Figure 3.25 Jet fuel use in NFR sectors for other mobile sources 1985-2003

Except for small boats and pleasure crafts (inland waterways) the fuel use has made a slight decrease from 1990 to 2000 in the above mentioned sectors. Classified according to NFR the most important sectors are Agriculture/forestry/fisheries (1A4c), Industry-other (mobile machinery part of 1A2f) and Navigation (1A3d), as seen in Figure 3.22. Minor fuel consuming sectors are Civil Aviation (1A3a), Railways (1A3c), Other (military mobile fuel use: 1A5) and Residential (1A4b). The 1985-2003 time-series are shown per fuel type in Figures 3.23-3.25 for diesel, gasoline and jet fuel, respectively.

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

The Navigation sector comprises national sea transport (fuel use between two Danish ports) and small boats and pleasure crafts. For the latter categories the fuel use has increased significantly from 1990 to 2000 due to more gasoline and diesel fuelled private boats. For national sea transport the diesel fuel use has shown some fluctuations in the same time period and the amount of fuel used is actually lower in 2003 than in 1990. The most important explanation for this fuel use de-

crease is the shut down of ferry service connections in connection with the opening of the Great Belt Bridge in 1997.

The considerable year by year variations in military jet fuel use is due to planning and budget-wise reasons and the passing demand for flying activities. Consequently, for some years a certain degree of jet fuel stock building might disturb the real picture of aircraft fuel use. Civil aviation has decreased since the building of the Great Belt Bridge, both in terms of number of flights and total jet fuel use. For railways the gradual shift towards electrification explains the lowering trend in diesel fuel use and emissions for this transport sector. The fuel used (and associated emissions) to produce electricity are accounted for in the stationary source part of the Danish inventories.

Bunkers

The residual oil and diesel oil fuel use fluctuations reflect the quantity of fuel sold in Denmark to international ferries, international warships, other ships with foreign destinations, transport to Greenland and the Faroe Islands, tank vessels and foreign fishing boats. For jet petrol the sudden fuel use drop in 2002 is explained by the recession in the air traffic sector due to the events of September 11, 2001 and structural changes in the aviation business.

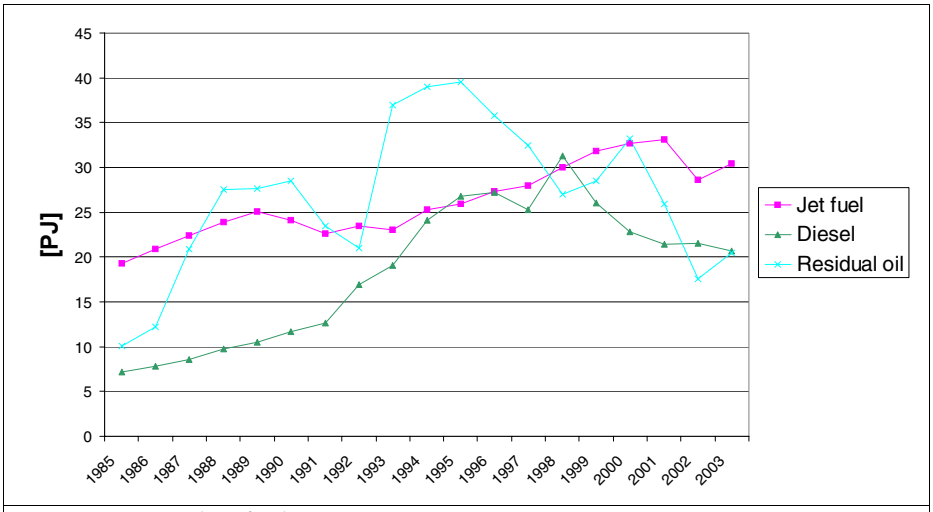


Figure 3.26 Bunker fuel use 1985-2003

3.3.1.2 Emissions of SO_2, NO_X, NMVOC and CO

In Table 3.18 the SO_2, NO_X, NMVOC and CO emissions for road transport and other mobile sources are shown for 2003 in NFR sectors. The emission figures in time-series 1985-2003 are given in Annex 2.B.13 (NFR format) and are shown for 1990 and 2003 in Annex 2.B.9 (CollectER format).

From 1985 to 2003 the road transport emissions of NMVOC, CO and NO_X emissions have decreased by 61, 52, 28%, respectively (Figures 3.28-3.30). The highest CO, NO_X and NMVOC emissions occur in 1991, after which the emissions drop by 43, 36 and 61%, respectively, until 2003.

For other mobile sources the emissions of NO_X has decreased by 15% from 1985 to 2003 and for SO_2 the emission drop is as much as 75% (77% since 1980). In the same period the emissions of NMVOC and CO has increased by 28 and 2%, respectively (Figures 3.32-3.35).

Table 3.18 Emissions of SO_2, NO_X, NMVOC and CO in 2003 for road transport and other mobile sources

NFR ID	SO_2 [tons]	NO_X [tons]	NMVOC [tons]	CO [tons]
Military (1A5)	4	449	58	310
Railways (1A3c)	7	3540	223	611
Navigation (1A3d)	1859	8842	11383	20045
Agriculture/for./fish. (1A4c)	1234	31028	4931	22259
Civil Aviation (1A3a)	5	585	123	718
Industry-Other (1A2f)	201	10646	3006	10778
Residential (1A4b)	3	239	4162	47601
Total other mobile	3312	55328	23887	102321
Road (1A3b)	373	64892	31861	274460
Total mobile	3685	120220	55748	376782

Road transport

The step-wise lowering of the sulphur content in diesel fuel has brought along a substantial decrease in the road transport emissions of SO_2 (Figure 3.27) In 1999 the sulphur content was reduced from 500 ppm to the present level of 50 ppm (the same as for gasoline). Since Danish diesel and gasoline fuels have the same sulphur-percentages at present, the 2003 shares for SO_2 emissions and fuel use for passenger cars, heavy-duty vehicles, light-duty vehicles and 2-wheelers are the same in each case; 55, 26, 18 and 1%, respectively (Figure 3.31).

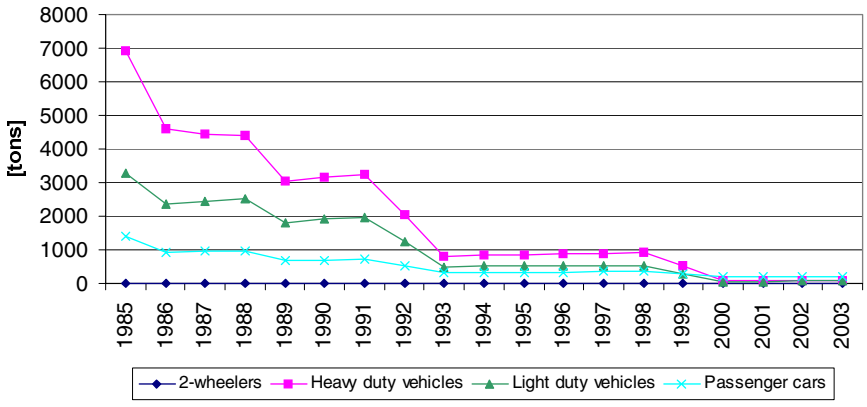


Figure 3.27 SO_2 emissions (ktons) per vehicle type for road transport 1985-2003

Historically the emission totals of NO_X and especially NMVOC and CO have been very dominated by the contributions coming from private cars, as shown in the Figures 3.28-3.30. However, the emissions from this vehicle type have shown a steady decreasing tendency since the introduction of catalyst private cars in 1990 (EURO I), and the introduction of even more emission efficient EURO II and III private cars (introduced in 1997 and 2001, respectively). In general, the total emission reductions of NO_X, NMVOC and CO are fortified by the introduction of new gradually stricter EURO emission standards for all other vehicle classes. For 2003, however, the significant increase in the diesel fuel use causes the NO_X emissions to increase for light and heavy-duty vehicles.

In 2003 the emission shares for passenger cars, heavy-duty vehicles, light-duty vehicles and 2-wheelers were 46, 38, 16 and 0%, respectively, for NO_X, 74, 9, 7 and 10%, respectively, for NMVOC and 87, 2, 6 and 5%, respectively, for CO (Figure 3.31).

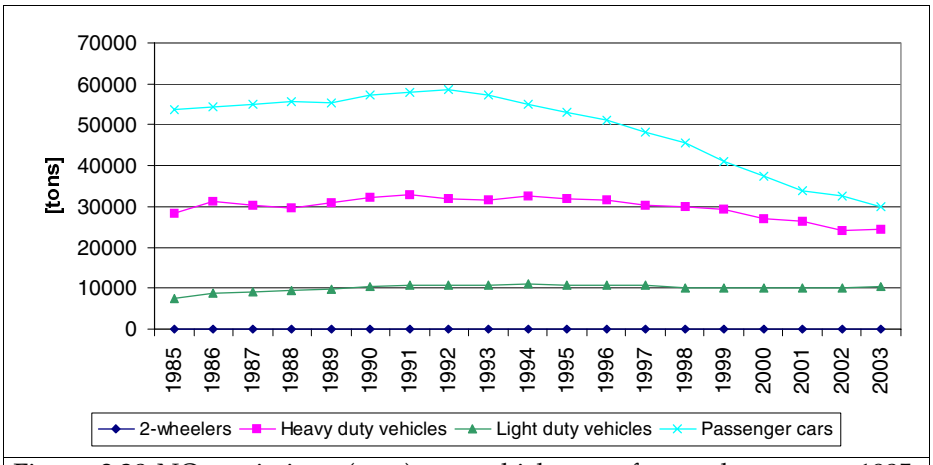


Figure 3.28 NO_x emissions (tons) per vehicle type for road transport 1985-2003

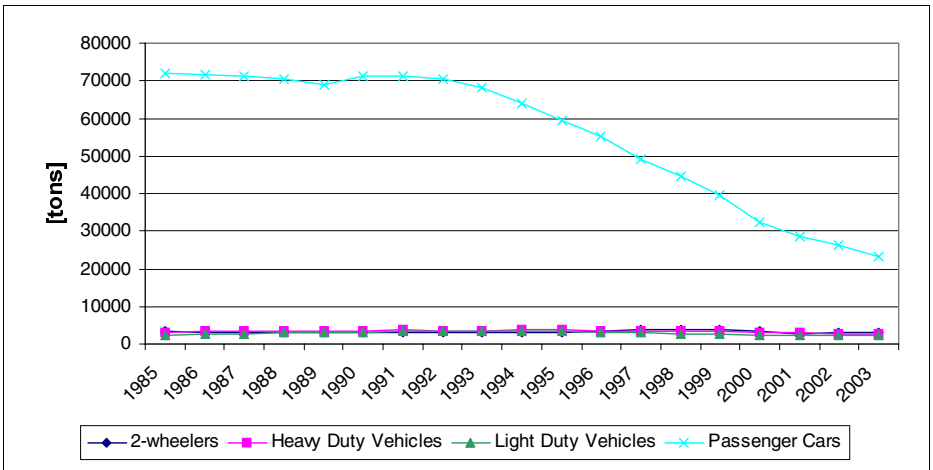


Figure 3.29 NMVOC emissions (tons) per vehicle type for road transport 1985-2003

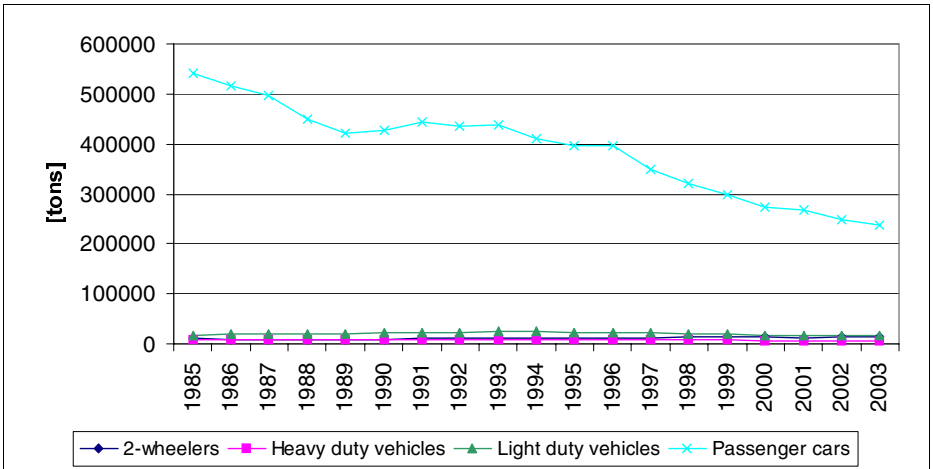


Figure 3.30 CO emissions (tons) per vehicle type for road transport 1985-2003

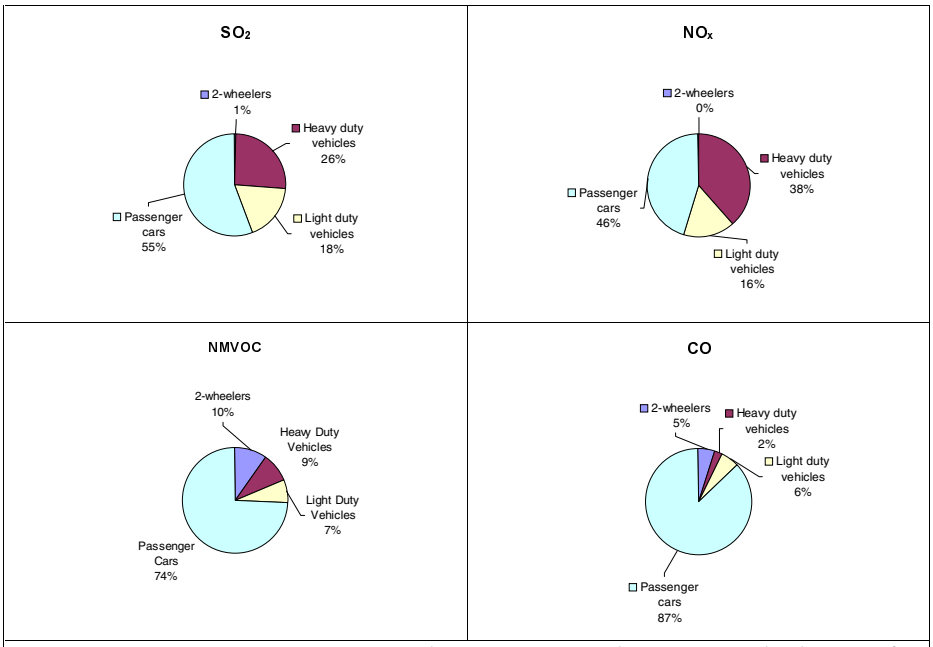


Figure 3.31 SO_2, NO_X, NMVOC and CO emission shares per vehicle type for road transport in 2003

Other mobile sources

The SO_2 emissions decrease significantly from 1985 to 1996, as shown in Figure 3.32. The lowering is due to the reduction of the sulphur content for marine diesel fuel in Navigation (1A3d) and diesel fuel used by, among others, Railways (1A3c) and non-road machinery in Agriculture/forestry/fisheries (1A4c) and Industry (1A2f).

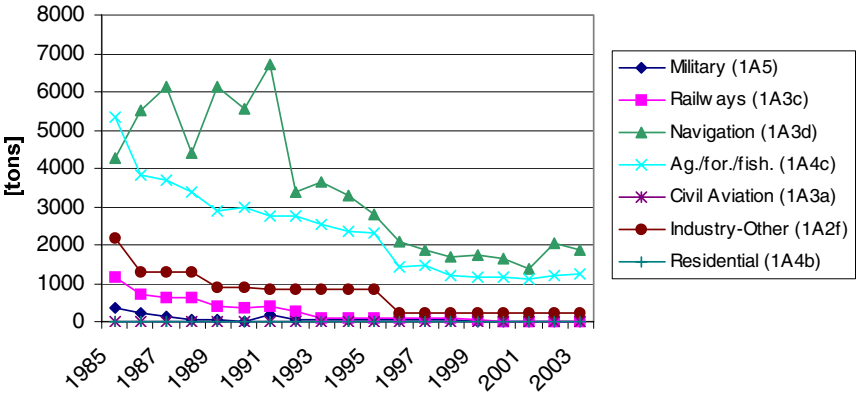


Figure 3.32 SO_2 emissions (ktons) in NFR sectors for other mobile sources 1985-2003

In general the emissions of NO_X, NMVOC and CO from diesel fuelled working equipment and machinery in agriculture, forestry and industry have decreased slightly since the end of the 1990s due to the implementation of a two-stage EU emission directive.

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), as shown in Figure 3.33. The 2003 emission shares are 57, 19, 16 and 6%, respectively (Figure 3.36). Minor emissions come from Civil Aviation (1A3a), Military (1A5) and Residential (1A4b).

The NO_x emission trend for Agriculture/forestry/fisheries is determined by fuel use (and hence emissions) fluctuations for fishery and the constant emission decrease for diesel fuelled agricultural machines. The latter emission decline is the product of decreasing fuel use between 1990 and 2000 and an improved emission performance for new machinery since the late 1990's.

The emission explanation for agricultural NO_x also applies for industry NO_x emissions. The development in fuel use for national sea transport explains the emission trend for navigation. The most influential parameter is the shut down of ferry service connections in connection with the opening of the Great Belt Bridge 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.

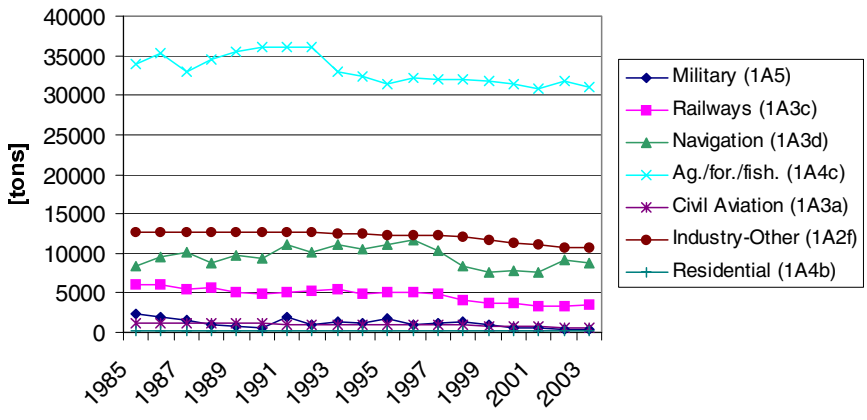


Figure 3.33 NO_x emissions (tons) in NFR sectors for other mobile sources 1985-2003

The 1985-2003 time-series of NMVOC and CO emissions are shown in the Figures 3.34 and 3.35 for other mobile sources. The 2003 sectoral emission shares are shown in Figure 3.36. For NMVOC the most important sectors are Navigation (1A3d), Agriculture/forestry/fisheries (1A4c), Residential (1A4b) and Industry (1A2f) with 2003 emission shares of 47, 21, 17 and 13%, respectively. The same four sectors also contribute with most of the CO emissions. However, in this case the largest emission source is Residential (1A4b), followed by Agriculture/forestry/fisheries (1A4c), Navigation (1A3d) and Industry (1A2f), with 2003 emission shares of 46, 21, 20 and 11%, respectively. Minor NMVOC and CO emissions come from Railways (1A3c), Civil Aviation (1A3a) and Military (1A5).

The reason for high NMVOC and relatively large CO emissions in navigation is the appearance of more gasoline fuelled private boats in navigation, whereas the high CO and relatively large NMVOC emissions from the residential sector solely come from gasoline fuelled working machinery (characterised by high emission factors).

In agriculture/forestry/fisheries the large amount of diesel used by agricultural tractors causes most of the NMVOC, whereas the use of diesel and LPG (and to a smaller extent gasoline) causes the NMVOC emissions from industry. The majority of the CO emissions from the same two sectors are emitted by gasoline engines.

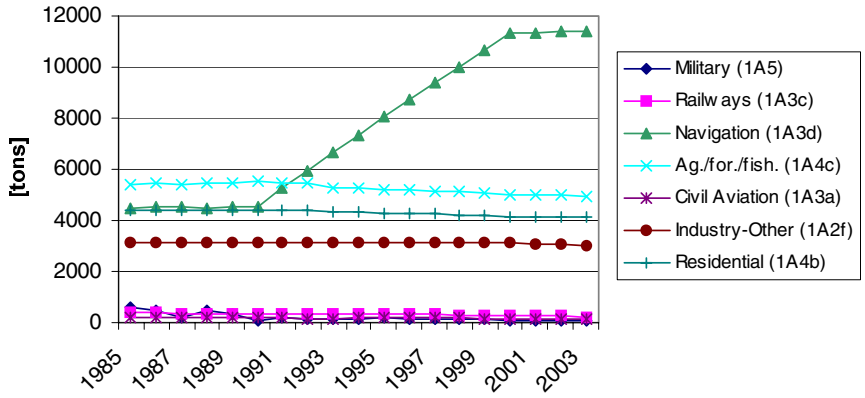


Figure 3.34 NMVOC emissions (tons) in NFR sectors for other mobile sources 1985-2003

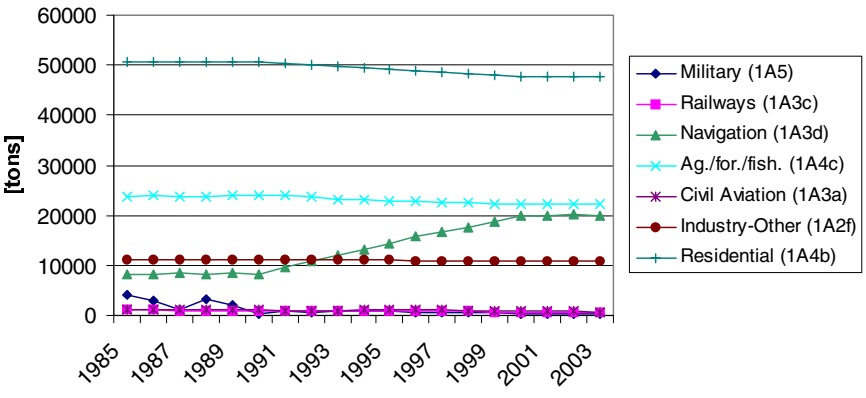


Figure 3.35 CO emissions (tons) in NFR sectors for other mobile sources 1985-2003

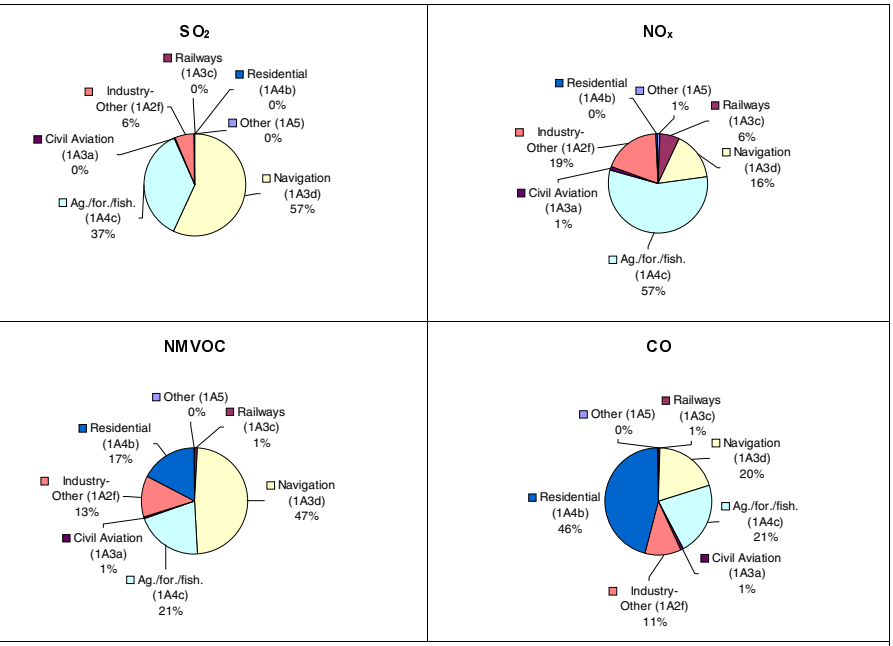


Figure 3.36 SO_2, NO_X, NMVOC and CO emission shares for other mobile sources in 2003

3.3.1.3 Particulate matter (PM)

The Danish emission inventories comprise the exhaust emission estimates of particulate matter (PM) for all mobile sources. In addition, the inventories include the non-exhaust PM emissions coming from road transport brake and tyre wear and road abrasion.

In Table 3.19 the TSP, PM_{10} and $PM_{2.5}$ emissions for road transport and other mobile sources are shown for 2003 in NFR sectors. The emission figures (exhaust only) in time-series 1985-2003 are given in Annex 2.B.13 (NFR format). Exhaust PM emissions are also shown for 1990 and 2003 in Annex 2.B.9 (CollectER format), while 2003 non-exhaust emission figures are shown in Annex 2.B.10.

From 1985 to 2003 the PM emissions (exhaust only) have decreased by 30% (from Figure 3.37). The highest emissions occur in 1991, after which the emissions drop by 41%, until 2003. The TSP emissions for other mobile sources have decreased by 13% from 1985 to 2003 (from Figure 3.39).

Table 3.19 Emissions of TSP, PM_{10} and $PM_{2.5}$ in 2003 from road transport and other mobile sources

NFR Sector	TSP [tons]	PM_{10} [tons]	$PM_{2.5}$ [tons]
Military (1A5)	25	25	25
Railways (1A3c)	119	119	119
Navigation (1A3d)	588	559	533
Ag./for./fish. (1A4c)	2380	2261	2150
Civil Aviation (1A3a)	3	3	3
Industry-Other (1A2f)	926	881	838
Residential (1A4b)	26	26	26
Total other mobile	4065	3874	3693
Road exhaust (1A3b)	3473	3473	3473
Road Brake wear	515	504	201
Road Tyre wear	796	477	334
Road abrasion	925	463	250
Total Road non-exhaust	2236	1444	785
Total Road	5709	4918	4258
Total mobile	9774	8791	7951

PM emissions from exhaust

Exhaust particulate emissions from road transportation vehicles are well below $PM_{2.5}$. The largest emission contributor in 2003 was light duty vehicles (45%) followed by heavy-duty vehicles (33%), passenger cars (21%) and 2-wheelers (1%), as shown in Figure 3.38.

The emissions from light and heavy-duty vehicles have significantly decreased since the mid-1990s due to gradually stricter EURO emission standards. However, from 2002 to 2003 the decline in the emission curbs due to the sudden diesel fuel use increase for these two vehicle categories. The environmental benefit of introducing diesel private cars with lower particulate emissions since 1990 is more or less outbalanced by an increase in vehicle new sales in recent years. (Figure 3.37).

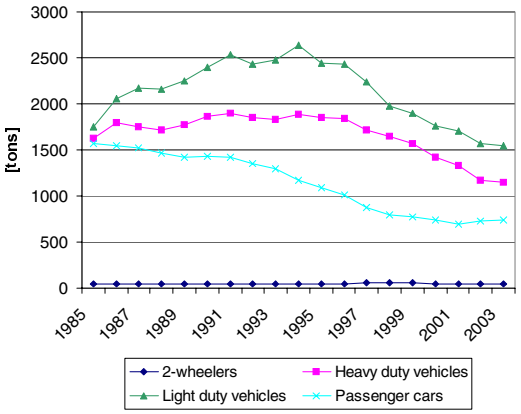


Figure 3.37 Exhaust particulate emissions ($PM_{2.5}$) in tons from 1985-2003 for road transport

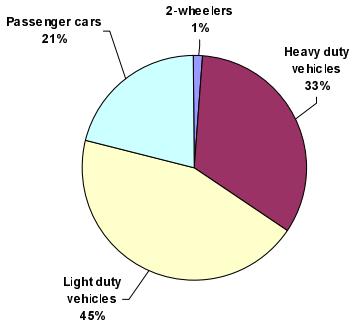


Figure 3.38 Exhaust particulate emission ($PM_{2.5}$) shares for road transport in 2003

As shown in Figure 3.40 for other mobile sources the largest TSP contributors in 2003 are agriculture/forestry/fisheries (1A4c), industry (1A2f) and navigation (1A3d), with emission shares of 58, 23 and 14%, respectively. The remaining sectors: Railways (1A3c), civil aviation (1A3a), military (1A5) and residential (1A4b) are only minor emission sources.

For civil aviation, residential and gasoline fuel use in the agriculture/forestry/fisheries (1A4c), industry (1A2f) and navigation (1A3d) sectors no TSP emission estimates are made from 1998 and backwards. For military jet fuel use the first estimate dates to 1999. However, these emission contributions are small compared to the emissions from diesel fuel use.

As for NO_X the TSP emission trend for agriculture/forestry/fisheries is determined by fuel use fluctuations for fishery and the slight emission decrease for diesel fuelled agricultural machines. The latter emission decline is the product of decreasing fuel use between 1990 and 2000 and an improved emission performance for new machinery since the late 1990's (Figure 3.39).

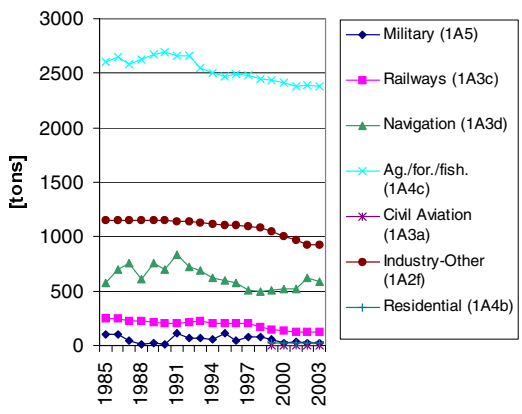


Figure 3.39 Exhaust particulate emissions (TSP) in tons from 1985-2003 for other mobile sources

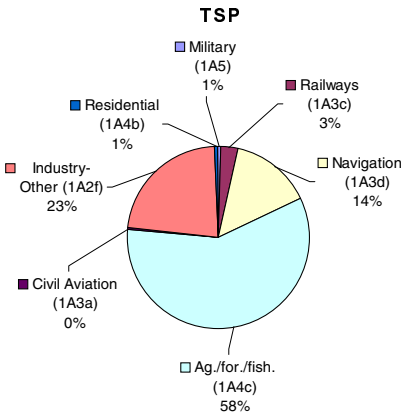


Figure 3.40 Exhaust particulate emissions (TSP) shares for other mobile sources in 2003

Non-exhaust PM

The respective source category distributions for TSP, PM_{10} and $PM_{2.5}$ emissions are identical for each of the non-exhaust emission type's brake and tyre wear and road abrasion, and hence only

the PM_{10} distributions are shown in Figure 3.41. For brake and tyre wear passenger cars cause the highest emissions in 2003, followed by light duty vehicles, trucks, buses and 2-wheelers. Trucks cause more road abrasion emissions than light duty vehicles, but apart from that the size order of emission sources is the same as for brake and tyre wear.

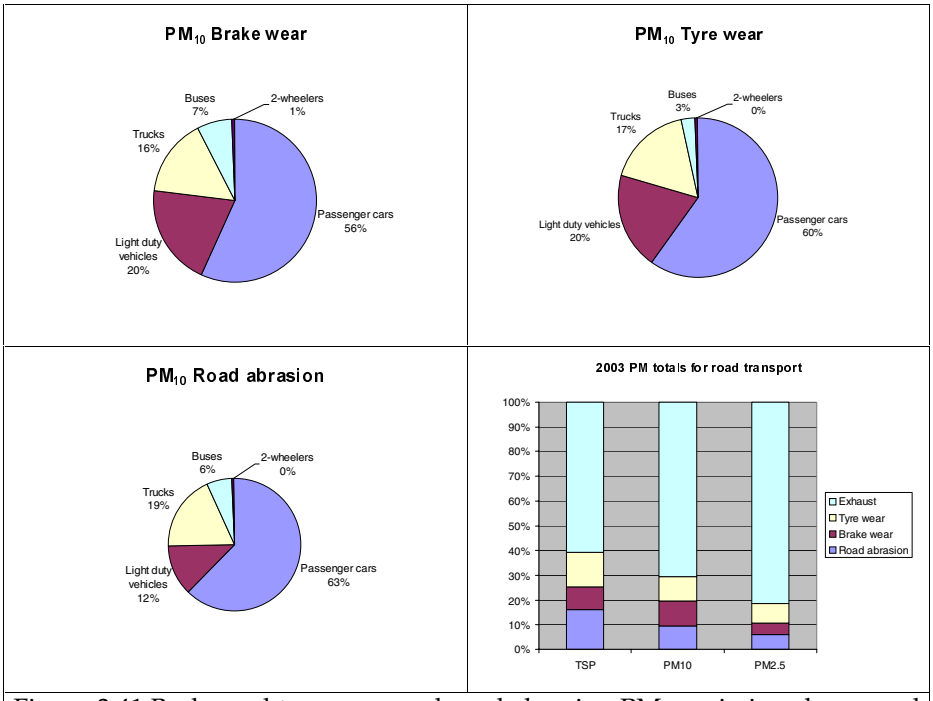


Figure 3.41 Brake and tyre wear and road abrasion PM_{10} emission shares and PM exhaust-non exhaust distributions for road traffic in 2003

The exhaust emission shares of total road transport TSP, PM_{10} and $PM_{2.5}$ are 61, 71 and 82%, respectively in 2003. For brake and tyre wear and road abrasion the TSP shares are 9, 14 and 16%, respectively. The same three sources have PM_{10} shares of 10, 10 and 9%, respectively, and $PM_{2.5}$ shares of 5, 8 and 6%, respectively. 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.

3.3.1.4 Heavy metals

In Table 3.20 the heavy-metal emissions for road transport and other mobile sources is shown for 2003 in NFR sectors. The emission figures in time-series 1990-2003 are given in Annex 2.B.13 (NFR format) and are shown for 1990 and 2003 in Annex 2.B.9 (CollectER format).

The heavy metal emission factors (except Pb) are taken from the EMEP/CORINAIR guidebook and are constant throughout the 1990-2003 period. Consequently the emission development follows the trends in fuel use. The road transport emissions have increased with 22% from 1990 to 2003. For Pb, though, there has been a 99% emission decline, due to the phasing out of leaded gasoline fuels until 1994 (Figure 3.43). For other mobile sources the components have emission increases of around 10-20% between 1990 and 2003, except in the case of arsenic (As) and Ni where the emission increase is around 40%.

Table 3.20 Heavy metal emissions in 2003 for road transport and other mobile sources

NFR Sector	As [kg]	Cd [kg]	Cr [kg]	Cu [kg]	Hg [kg]	Ni [kg]	Pb [kg]	Se [kg]	Zn [kg]
Military (1A5)	0	0	1	50	0	2	78	0	29
Railways (1A3c)		1	3	117		5		1	69
Navigation (1A3d)	27	3	15	102	5	1346	19	36	129
Ag./for./fish. (1A4c)	11	6	28	669	10	103	21	44	488
Civil Aviation (1A3a)	0	0	2	74	0	3	1026	0	44
Industry-Other (1A2f)		2	10	347		14	0	2	204
Residential (1A4b)		0	1	43		2	1	0	26
Total other mobile	38	12	61	1402	15	1475	1144	84	988
Road (1A3b)	0	37	187	6345	0	261	57	37	3732
Total mobile	38	49	248	7747	15	1736	1201	121	4720

As shown in Figure 3.42, the road transport emissions of cadmium (Cd), Cr, Cu and Zn accounts for around two thirds of the total for all mobile sources in 2003. No road transport emissions occur for As and mercury (Hg). Instead the emissions of these species come from the use of marine diesel oil and residual oil in fisheries and navigation. The latter sector also has large emissions of Ni (from residual oil), whereas the selenium (Se) emissions in almost equal shares come from agriculture/forestry/fisheries, road transport and navigation.

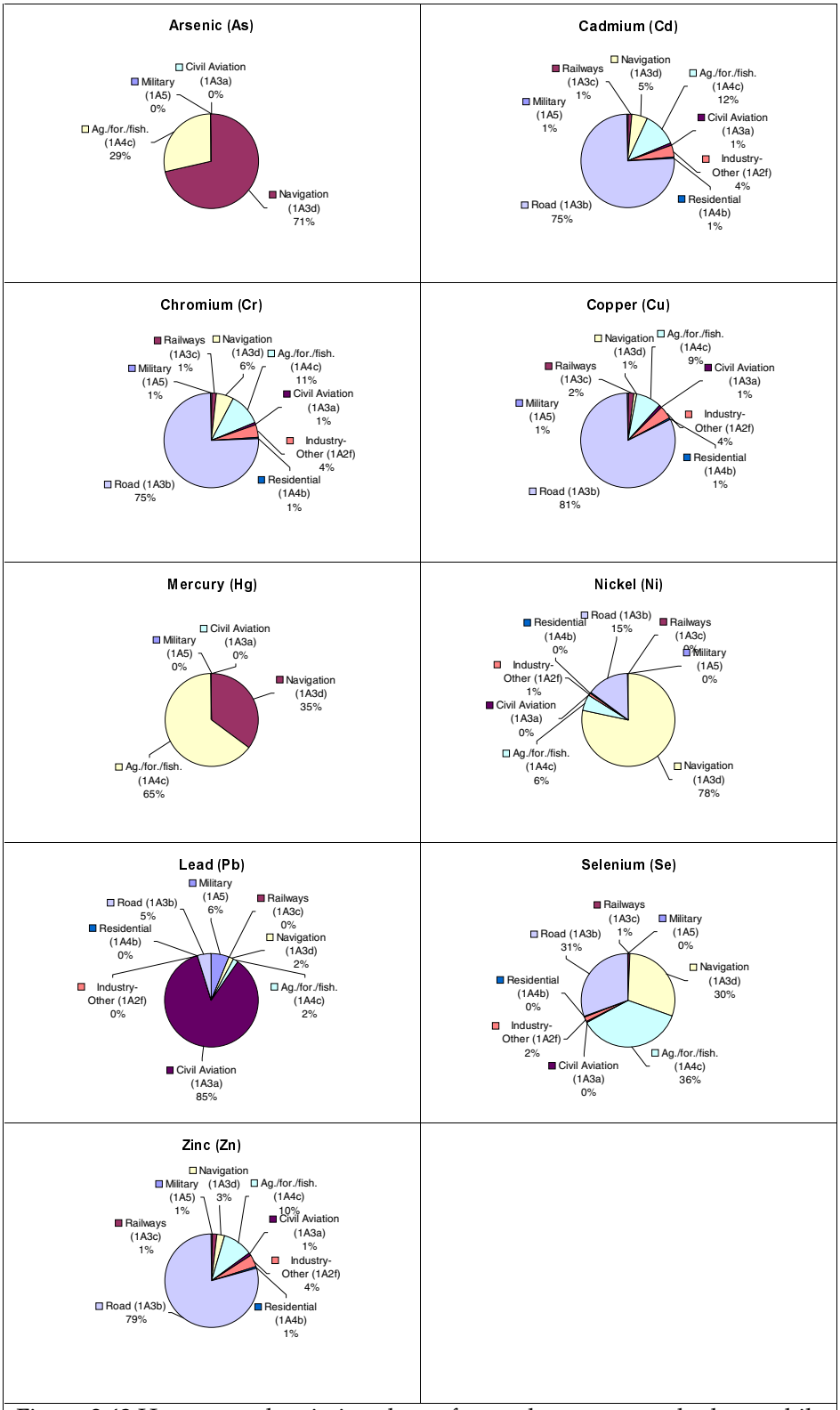


Figure 3.42 Heavy metal emission shares for road transport and other mobile sources in 2003

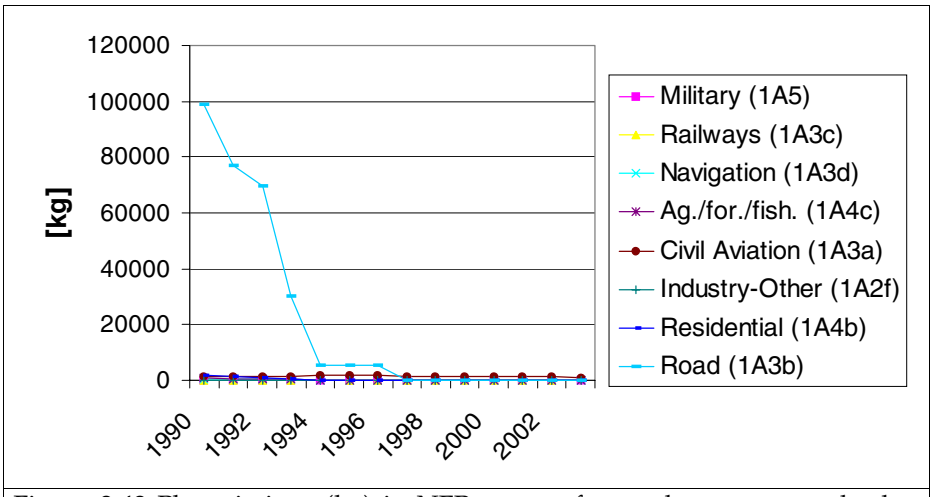


Figure 3.43 Pb emissions (kg) in NFR sectors for road transport and other mobile sources 1990-2003

3.3.1.5 Dioxin and PAH

In Table 3.21 the dioxin and PAH emissions for road transport and other mobile sources are shown for 2003 in NFR sectors. The emission figures in time-series 1990-2003 are given in Annex 2.B.13 (NFR format) and are shown for 1990 and 2003 in Annex 2.B.9 (CollectER format).

Table 3.21 Dioxin and PAH emissions in 2003 for road transport and other mobile sources

NFR ID	Dioxins/ Furans [g]	Flouranthene [kg]	Benzo(b) flouranthene [kg]	Benzo(k) flouranthene [kg]	Benzo(a) pyrene [kg]	Benzo(g,h,i) perylene [kg]	Indeno (1,2,3-c,d) pyrene [kg]
Other (1A5)	0	3	0	0	0	0	0
Railways (1A3c)	0	4	1	1	0	0	0
Navigation (1A3d)	0	46	4	2	1	7	5
Ag./for./fish. (1A4c)	0	135	14	11	5	20	14
Civil Aviation (1A3a)	0	0	0	0	0	0	0
Industry-Other (1A2f)	0	38	4	4	2	4	2
Residential (1A4b)	0	5	0	0	0	1	0
Total other mobile	0	231	23	18	9	32	22
Road (1A3b)	0	636	62	71	47	91	52
Total mobile	0	867	86	89	56	123	74

For mobile sources road transport has the largest emissions of dioxins and PAH (Figure 3.44). The dioxin emission share for road transport is 57% of all mobile emissions in 2003, whereas agriculture/forestry/fisheries and navigation have smaller shares of 25 and 16%. For the different PAH components the road transport shares are around two thirds of the total emissions for mobile sources. The remaining emissions almost solely come from agriculture/forestry/fisheries, navigation and industry with agriculture/forestry/fisheries as the largest source.

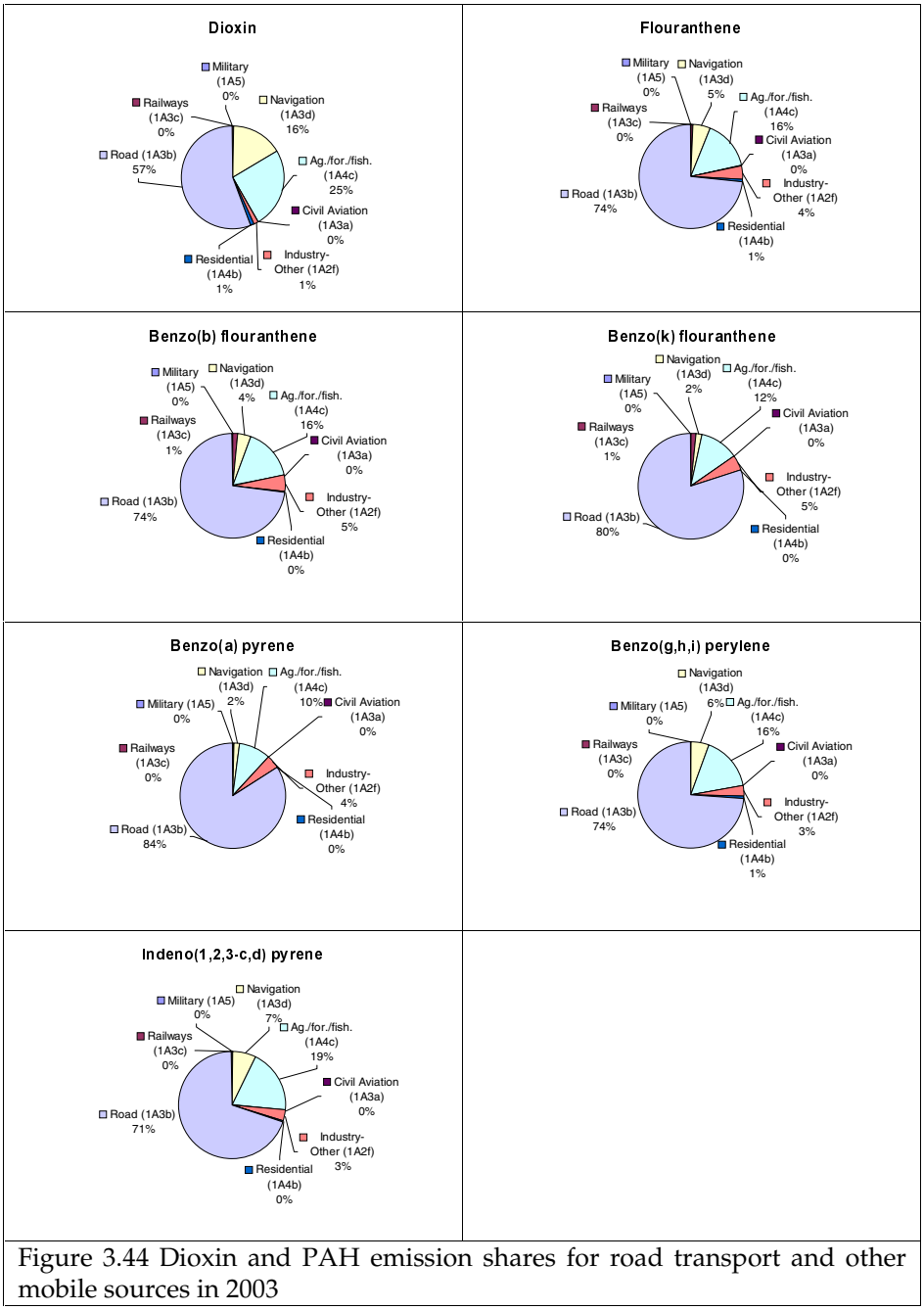


Figure 3.44 Dioxin and PAH emission shares for road transport and other mobile sources in 2003

3.3.1.6 Bunkers

The most important emissions from bunker fuel use (fuel use for international transport) are SO_2, NO_X, CO_2 and TSP. The total emission figures for SO_2, NO_X and TSP are shown in Table 3.22 for 2003, split into sea transport and civil aviation. All emission figures in time-series 1985-2003 are given in Annex 2.B.13 (NFR format). In Annex 2.B.9 the emissions are also given in CollectER format for the years 1990 and 2003, for other components than heavy metals and PAH, while the emissions for heavy metals and PAH's are shown in Annex 2.B.11 and 2.B.12, respectively.

Table 3.22 Emissions in 2003 for international transport and national totals

NFR sector	SO_2	NO_X	CO_2	TSP
Navigation int. (1A3d)	44114	85761	3130	4976
Civil Aviation int. (1A3a)	70	9288	2188	35
International total	44183	95049	5318	5012

The differences in emissions between navigation and civil aviation are much larger than differences in fuel use (and derived CO_2 emissions) and display a poor emission performance for international sea transport. In broad terms the emission trends shown in Figure 3.45 are similar to the fuel use development. Minor differences occur for navigation (SO_2, NO_x and TSP) due to shifting amounts of marine diesel and residual oil, and for civil aviation (NO_x) due to yearly variations in LTO/aircraft type (earlier than 2001) and city-pair (2001 onwards) statistics.

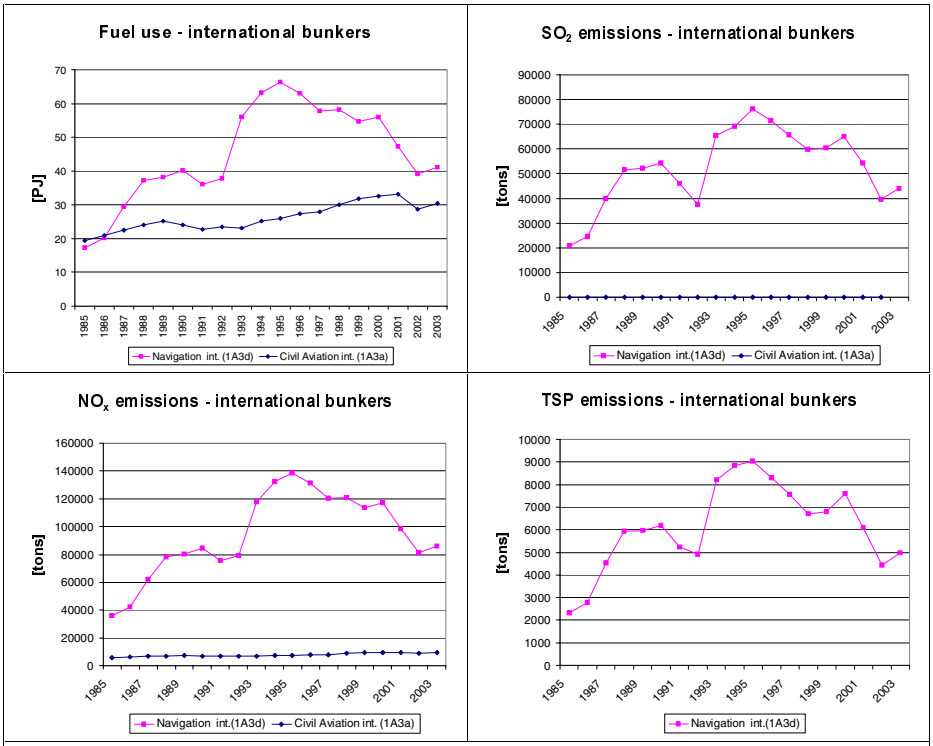


Figure 3.45 CO_2, SO_2, NO_x and TSP emissions for international transport 1985-2003

3.3.2 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.

3.3.2.1 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 classes, sub-classes and layers. The layer classification is a further division of vehicle sub-classes into groups of vehicles with the same average fuel use and emission behaviour according to EU emission legislation levels. Table 3.23 gives an overview of the different model classes and sub-classes, and the layer level with implementation years are shown in Annex 2.B.1.

Table 3.23 Model vehicle classes and sub-classes, trip speeds and mileage split

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

Information of the vehicle stock and annual mileage is obtained from the Danish Road Directorate (Ekman, 2004). This covers data for the number of vehicles and annual mileage per first registration year for all vehicle sub-classes, and mileage split between urban, rural and highway driving and the respective average speeds.

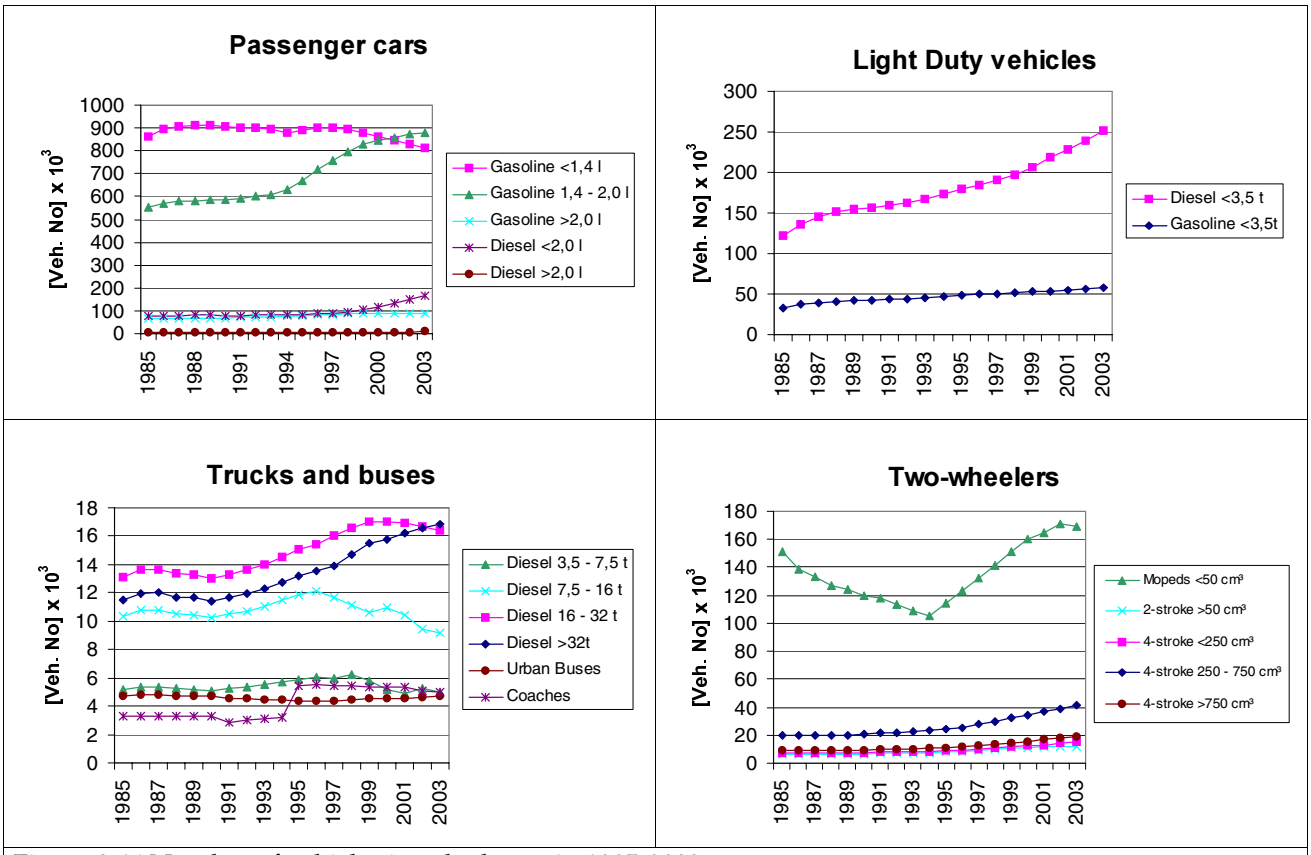


Figure 3.46 Number of vehicles in sub-classes in 1985-2003

The vehicle numbers per sub-class are shown in Figure 3.46. The increase in the total number of passenger cars is mostly due to a growth in the number of gasoline cars with engine sizes between 1.4 and 2 litres. In the later years there has been a decrease in the number of cars with engine sizes larger than 2 litres, and at the same time the number of diesel passenger cars has increased.

There has been a considerable growth in the number of diesel light duty vehicles from 1985 to 2003. The two largest truck sizes have also increased in numbers during the 1990's. From 2000 onwards this growth has continued for trucks larger than 32 tons, whereas the number of trucks with gross vehicle weights between 16 and 32 tons has decreased slightly.

The number of urban buses has been very constant from 1985 to 2003. The sudden change in the level of coach numbers from 1994 to 1995 is due to uncertain fleet data.

The reason for the significant growth in the number of mopeds from 1994 to 2002 is the introduction of the so-called Moped 45 vehicle type. For motorcycles the number of vehicles has grown in general throughout the entire 1985-2002 period. The increase is however most visible from the mid-1990's and onwards.

The vehicle numbers are summed up in layers for each year (Figure 3.47) by using the correspondence between layers and first registration year:

$$N_{j,y} = \sum_{i=FYear(j)}^{LYear(j)} N_{i,y} \quad (3.1)$$

Where N = number of vehicles, j = layer, y = year, i = first registration year.

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.

$$M_{j,y} = \frac{\sum_{i=FYear(j)}^{LYear(j)} N_{i,y} \cdot M_{i,y}}{\sum_{i=FYear(j)}^{LYear(j)} N_{i,y}} \quad (3.2)$$

Vehicle numbers and weighted annual mileages per layer are shown in Annex 2.B.1 and 2.B.2 for 1985-2003. The trends in vehicle numbers per layer are also shown in Figure 3.47. The latter figure shows how vehicles complying with the gradually stricter EU emission levels (EURO I, II, III etc.) have been introduced into the Danish motor fleet.

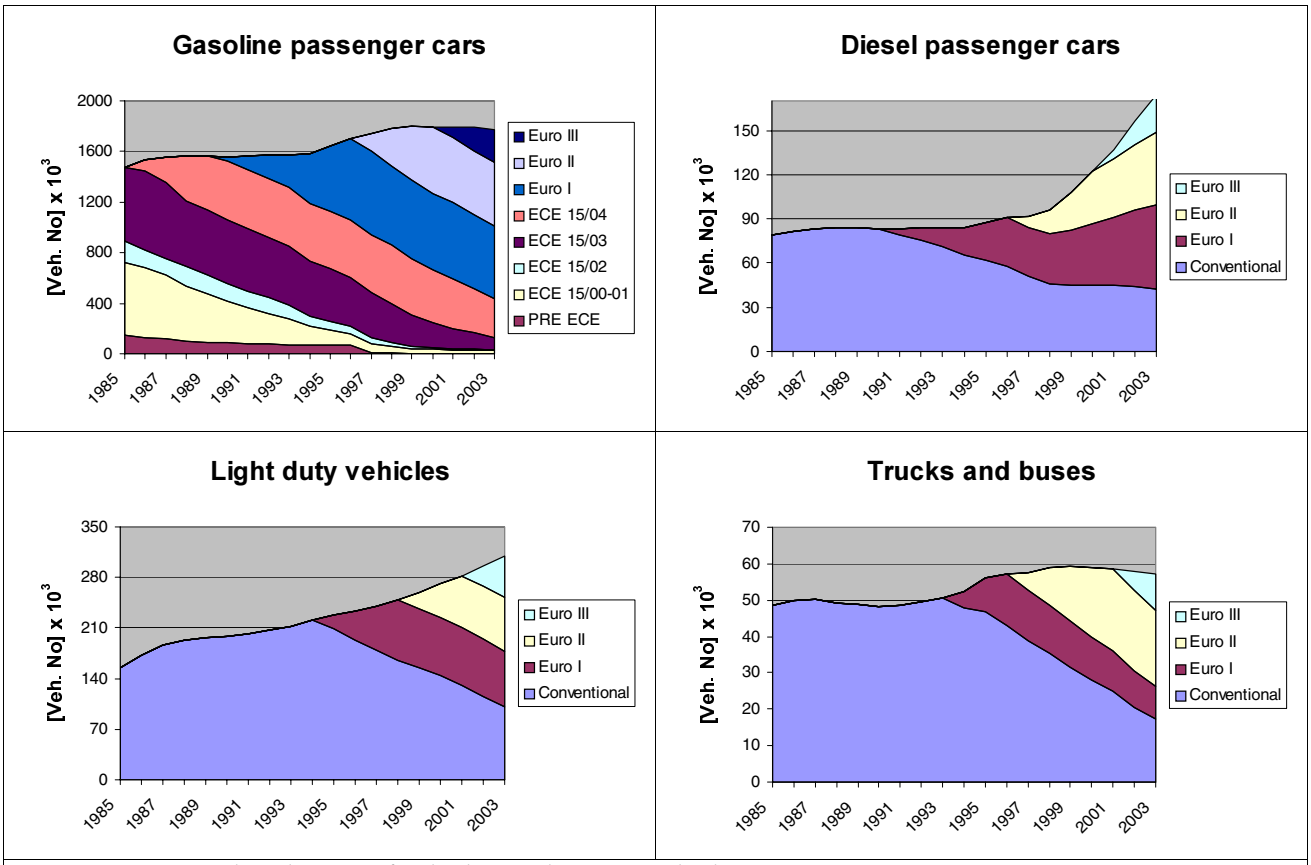


Figure 3.47 Layer distribution of vehicle numbers per vehicle type in 1985-2003

Trip speed dependent fuel use and emission factors are taken from the COPERT model using trip speeds as shown in Table 3.23. The factors are listed in Annex 2.B.3. For EU emission levels not represented by actual data, the emission factors are scaled according to the reduction factors given in Annex 2.B.4. For further explanation, see Ntziachristos et al. (2000) or Illerup et al. (2003).

Deterioration factors

For three-way catalyst cars the emissions of NO_X, 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 corresponding 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 3.3 and 3.4 show the calculations for the "Urban driving Cycle":

$$UDF = U_A \cdot MTC + U_B \text{ , MTC} < U_{MAX} \quad (3.3)$$

$$UDF = U_A \cdot U_{MAX} + U_B \text{ , MTC} >= U_{MAX} \quad (3.4)$$

Where UDF is the urban deterioration factor, 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:

$$DF_{j,y} = \frac{\sum_{i=FYear(j)}^{LYear(j)} DF_{i,y} \cdot N_{i,y} \cdot M_{i,y}}{\sum_{i=FYear(j)}^{LYear(j)} DF_{i,y} \cdot N_{i,y}} \quad (3.5)$$

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 for 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 3.23. For non-catalyst vehicles this yields:

$$E_{j,k,y} = EF_{j,k,y} \cdot S_k \cdot N_{j,y} \cdot M_{j,y} \quad (3.6)$$

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

For catalyst vehicles the calculation becomes:

$$E_{j,k,y} = DF_{j,k,y} \cdot EF_{j,k,y} \cdot S_k \cdot N_{j,y} \cdot M_{j,y} \quad (3.7)$$

Extra emissions and fuel use for cold engines

Extra emissions of SO_2, NO_X, NMVOC, CH_4, CO, CO_2, PM and fuel consumption from cold start are simulated separately. In the COPERT III 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. First 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. Finally this extra factor is applied on the fraction of the total mileage driven with a cold engine (the β-factor) for all vehicles in the specific layer.

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

$$CE_{j,y} = \beta \cdot N_{j,y} \cdot M_{j,y} \cdot EF_{U,j,y} \cdot (CEr - 1) \quad (3.8)$$

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 cold:hot 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 vehicles onwards.

For catalyst vehicles the cold extra emissions are found from:

$$CE_{j,y} = \beta_{red} \cdot \beta_{EUROI} \cdot N_{j,y} \cdot M_{j,y} \cdot EF_{U,j,y} \cdot (CEr_{EUROI} - 1) \quad (3.9)$$

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 depend on RVP (Reid Vapour Pressure) and the 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 depends 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's of the uncontrolled factors used by conventional gasoline vehicles.

$$R_{j,y} = N_{j,y} \cdot M_{j,y} \cdot ((1-\beta) \cdot HR + \beta \cdot WR) \quad (3.10)$$

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 occur 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:

$$S_{j,y}{}^{C} = N_{j,y} \cdot \frac{M_{j,y}}{l_{trip}} \cdot ((1-\beta) \cdot HS + \beta \cdot WS) \quad (3.11)$$

Where S^C is the soak emission, 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 $E^d(U)$:

$$E_{j,y}{}^{d}(U) = 365 \cdot N_{j,y} \cdot e^{d}(U) \quad (3.12)$$

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 COPERT III must equal the statistical fuel sale totals from the Danish Energy Authority (DEA, 2004) according to the UNFCCC and 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 derived as the ratio between simulated and statistical fuel figures for gasoline and diesel, respectively. This method is also used in the present model.

Table 3.24 COPERT III:DEA statistics fuel use ratios and mileage adjustment factors for the Danish 2003 road transport emission inventories.

Description	2003
COPERT III:DEA Gasoline (sales)	0.93
COPERT III:DEA Diesel (sales)	0.64
COPERT III:DEA Gasoline (cons.)	1.07
COPERT III:DEA Diesel (cons.)	1.76
Gasoline mileage factor (sales)	1.05
Diesel mileage factor (sales)	0.71
Gasoline mileage factor (cons.)	0.95
Diesel mileage factor (cons.)	1.54

In Table 3.24 the COPERT III:DEA gasoline and diesel fuel use ratios are shown for fuel sales and fuel consumption in 2003. The figures for 1985-2002 are shown in Annex 2.B.7. The latter figures are related to the traffic on Danish roads. As previously mentioned the fuel sale figures underpin the national emission estimates, due to convention definitions.

For gasoline vehicles all mileage numbers are equally scaled in order to obtain gasoline fuel equilibrium, and hence the gasoline mileage factor used is the reciprocal value of the COPERT III:DEA gasoline fuel use ratio.

For diesel the fuel balance is made 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. Consequently, the diesel mileage factor used is slightly higher than the reciprocal value of the COPERT III:DEA diesel fuel use ratio.

From Table 3.24 it appears that the inventory fuel balances for gasoline and diesel would be improved, if the DEA statistical figures for fuel consumption were used instead of fuel sale numbers. The fuel difference for diesel is, however, still significant. The reasons for this inaccuracy are a combination of the uncertainties related to COPERT III fuel use factors, allocation of vehicle numbers in sub-categories, annual mileage, trip speeds and mileage splits for urban, rural and highway driving conditions.

For future inventories it is intended to use improved fleet and mileage data from the Danish vehicle inspection programme (performed by the Danish motor vehicle inspection office). The update of road traffic fleet and mileage data will be made as soon as this information is provided from the Danish Ministry of Transport in a COPERT model input format. In addition, a new version of the COPERT model – COPERT IV - will be available in 2005. The scientific basis for the new model version is the work on emission models and measurements performed in the EU 5th framework programme.

The final fuel use and emission factors are shown in Annex 2.B.5 for 1990-2003. The total fuel use and emissions are shown in Annex 2.B.6 per vehicle category and as grand totals for 1990-2003 (and NFR format in Annex 2.B.13). In Annex 2.B.9 fuel use and emission factors as well as total emissions are given in CollectER format for 1990 and 2003.

In Table 3.25 the aggregated emission factors for CO_2, CH_4 and N_2O are shown per fuel type for the Danish road transport.

Table 3.25 Fuel based emission factors for SO_2, NO_X, NMVOC and TSP for road transport in Denmark (2003)

SNAP ID	Category	Fuel type	Mode	Emission factors[2] [g/GJ]			
				SO_2	NO_X	NMVOC	TSP
70101	Passenger cars	Diesel	Highway driving	2.34	281.99	12.33	41.63
70101	Passenger cars	Gasoline 2-stroke	Highway driving	2.28	288.90	2357.34	48.15
70101	Passenger cars	Gasoline conventional	Highway driving	2.28	1366.59	331.26	10.26
70101	Passenger cars	Gasoline catalyst	Highway driving	2.28	271.78	31.14	0.34
70101	Passenger cars	LPG	Highway driving	0.00	1151.70	187.09	10.06
70102	Passenger cars	Diesel	Rural driving	2.34	255.16	20.34	27.73
70102	Passenger cars	Gasoline 2-stroke	Rural driving	2.28	352.84	2476.82	41.51
70102	Passenger cars	Gasoline conventional	Rural driving	2.28	1163.83	450.22	11.43
70102	Passenger cars	Gasoline catalyst	Rural driving	2.28	193.62	32.10	0.38
70102	Passenger cars	LPG	Rural driving	0.00	1248.46	305.18	14.49
70103	Passenger cars	Diesel	Urban driving	2.34	261.28	59.28	55.34
70103	Passenger cars	Gasoline 2-stroke	Urban driving	2.28	61.43	3122.63	24.57
70103	Passenger cars	Gasoline conventional	Urban driving	2.28	632.26	888.22	11.00
70103	Passenger cars	Gasoline catalyst	Urban driving	2.28	186.65	255.83	0.33
70103	Passenger cars	LPG	Urban driving	0.00	613.83	439.70	11.67
70201	Light duty vehicles	Diesel	Highway driving	2.34	327.68	31.43	56.71
70201	Light duty vehicles	Gasoline conventional	Highway driving	2.28	1369.26	170.29	16.17
70201	Light duty vehicles	Gasoline catalyst	Highway driving	2.28	131.37	16.76	0.17
70202	Light duty vehicles	Diesel	Rural driving	2.34	348.00	36.01	53.91
70202	Light duty vehicles	Gasoline conventional	Rural driving	2.28	1188.86	262.59	15.25
70202	Light duty vehicles	Gasoline catalyst	Rural driving	2.28	115.58	22.73	0.16
70203	Light duty vehicles	Diesel	Urban driving	2.34	402.05	64.22	71.38
70203	Light duty vehicles	Gasoline conventional	Urban driving	2.28	622.43	711.11	8.79
70203	Light duty vehicles	Gasoline catalyst	Urban driving	2.28	127.82	137.87	0.12
70301	Heavy duty vehicles	Diesel	Highway driving	2.34	518.85	54.80	23.19
70301	Heavy duty vehicles	Gasoline	Highway driving	2.28	1037.78	474.61	55.35
70302	Heavy duty vehicles	Diesel	Rural driving	2.34	608.42	68.67	28.18
70302	Heavy duty vehicles	Gasoline	Rural driving	2.28	1141.55	820.40	60.88
70303	Heavy duty vehicles	Diesel	Urban driving	2.34	654.46	78.48	32.70
70303	Heavy duty vehicles	Gasoline	Urban driving	2.28	456.62	696.09	40.59
704	Mopeds	Gasoline		2.28	30.24	7571.80	88.94
70501	Motorcycles	Gasoline	Highway driving	2.28	224.08	1167.69	29.88
70502	Motorcycles	Gasoline	Rural driving	2.28	181.40	1408.90	35.79
70503	Motorcycles	Gasoline	Urban driving	2.28	99.81	1879.37	36.18

3.3.2.2 Non-exhaust particulate emissions from road transport

The TSP, PM_{10} and $PM_{2.5}$ emissions arising from tyre and brake wear (SNAP 0707) and road abrasion (SNAP 0708) are estimated for the years 2000-2003 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 Win-

[2] References. SO_2: Country specific; NO_X and NMVOC: COPERT III; TSP diesel: COPERT III; TSP gasoline and LPG: TNO/CEPMEIP database

ther (2004), and emission factors are taken from EMEP/CORINAIR (2003). The emission factors and total emissions for 2003 are shown in Annex 2.B.10.

3.3.2.3 Methodologies and references for other mobile sources

The other mobile sources are 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 as described in the EMEP/CORINAIR Emission Inventory Guidebook (EMEP/CORINAIR, 2003) for air traffic and off road working machinery and equipment, while for the remaining sectors the simple method is used.

Activity data

Air traffic

The activity data for air traffic consists 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 were provided by Copenhagen Airport (for this airport only), while CAA-DK gave information of total take off numbers for other Danish airports. Fuel statistics for jet fuel use and aviation gasoline were obtained from the Danish energy statistics (DEA, 2004).

Prior to emission calculations the aircraft types are grouped into a smaller number of representative aircrafts for which fuel use and emission data exist in the EMEP/CORINAIR databank. In this procedure the actual aircraft types are classified according to their overall aircraft type (jets, turbo props, helicopters and piston engine). Secondly, information on the aircraft MTOM (Maximum Take Off Mass) and number of engines are used to append a representative aircraft to the aircraft type in question.

A more thorough documentation of the emission calculations for aviation will be given in the sector report for 2003.

Non-road working machinery and equipment

In Denmark non-road working machinery and equipment are used in agriculture, forestry, industry, household/gardening and inland waterways (small boats and pleasure crafts). The number of different types of machines, their load factors, engine sizes and annual working hours are taken from a national 1990 survey reported by the Danish Technological Institute (1992 and 1993). All activity data can be seen in Annex 2.B.8.

The amount of fuel sold for non-road machinery and small boats/pleasure crafts cannot be derived explicitly from national fuel sale statistics and hence it is necessary to make a bottom-up estimate of the fuel used. In this way the fuel use for diesel, gasoline and LPG is calculated for 1990 using the 1990 activity data and EMEP/CORINAIR fuel use factors. The latter factors are shown in Annex 2.B.8. Equation 3.13 explains the calculation procedure:

$$F = N \cdot HRS \cdot HP \cdot LF \cdot FC \quad (3.13)$$

Where F = fuel use, N = number of engines, HRS = annual working hours, HP = average rated engine size in kW, LF = load factor and FC = fuel use factor in g/kWh.

The total fuel use per fuel type is calculated as the sum of fuel use for all engines.

The results from a national 2000 survey funded by the Danish EPA are used to make a fuel use estimate per fuel type for non-road machinery in this year (Bak et al., 2003). The assumptions have

been set in agreement with experts from the Danish Energy Authority and the Technological Institute of Denmark, see Winther (2003). For the years prior to 1990 and after 2000, respectively, the fuel use estimates for 1990 and 2000 are used. By interpolation the two latter figures are also used to make estimates for the years in between.

Table 3.26 Fuel use estimates for non-road in 1990 and 2000

	1990 (TJ)	2000 (TJ)
Diesel, non-road	26575	24580
Gasoline, non-road	1911	1797
LPG, non-road	1251	1499
Inland waterways, diesel	371	1002
Inland waterways, gasoline	545	902

In order to ensure that the same total fuel amount is behind the Danish emission inventories and the reported fuel sale figures by DEA, some decisions have to be made as regards fuel allocation on sub-sectoral levels (Winther, 2003).

For diesel and LPG, the non-road fuel use is partly covered by the fuel use amounts in the following DEA sectors: agriculture and forestry, market gardening and building and construction. The remaining quantity of non-road diesel and LPG is taken from the DEA industry sector.

For gasoline the DEA residential sector, together with the DEA sectors mentioned for diesel and LPG, contribute to the non-road fuel use total. In addition a small fuel amount from road transport is needed to reach the fuel use goal.

The amount of diesel and LPG in DEA industry not being used by non-road machinery is included in the sectors "Combustion in manufacturing industry" (0301) and "Non-industrial combustion plants" (0203) in the Danish emission inventory.

For small boats and pleasure crafts the calculated fuel use totals are subsequently subtracted from the DEA fishery (diesel) and road transport (gasoline) sectors.

Other sectors

The activity data for military, railways, sea transport and fishery consists of fuel use information from DEA (2003). For sea transport the basis is fuel sold in Danish ports and depending on the destination of the vessels in question the traffic is defined as either national or international as prescribed by the IPCC guidelines. For all sectors fuel use figures are given in Annex 2.B.9 for the years 1990 and 2003 in CollectER format.

Emission factors

For military ground material aggregated emission factors for gasoline and diesel are derived from the road traffic emission simulations made with the COPERT model. For railways specific Danish measurements from the Danish State Railways (DSB) (Næraa, 2004) are used. 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 2.B.9 for the years 1990 and 2003.

Table 3.27 shows the emission factors CO_2, CH_4 and N_2O. These factors estimate the emissions from other mobile sources in Denmark.

Table 3.27 Fuel specific emission factors for CO_2, CH_4 and N_2O for other mobile sources in Denmark

SNAP ID	NFR ID	Category	Fuel type	Mode	Emission factors[3] [g/GJ] SO_2	NO_X	NMVOC	TSP
801	1A5	Military	Diesel		2,34	470,25	56,07	41,01
801	1A5	Military	Jet fuel	< 3000 ft	4,60	250,57	24,94	1,16
801	1A5	Military	Jet fuel	> 3000 ft	4,60	250,57	24,94	1,16
801	1A5	Military	Gasoline		2,28	332,39	327,17	4,43
801	1A5	Military	Aviation gasoline		4,57	859,00	1242,60	10,00
802	1A3c	Railways	Diesel		2,34	1199,93	75,60	40,20
803	1A3d	Inland waterways	Diesel		23,42	1249,33	270,13	164,83
803	1A3d	Inland waterways	Gasoline		2,28	64,34	10809,58	23,25
80402	1A3d	National sea traffic	Residual oil		810,26	1393,60	56,90	139,40
80402	1A3d	National sea traffic	Diesel		93,68	1334,90	54,50	42,15
80402	1A3d	National sea traffic	Kerosene		4,60	50,00	3,00	97,56
80402	1A3d	National sea traffic	LPG		0,00	1249,00	384,90	12,44
80403	1A4c	Fishing	Residual oil		810,26	1393,60	56,90	139,40
80403	1A4c	Fishing	Diesel		93,68	1334,90	54,50	42,15
80403	1A4c	Fishing	Kerosene		4,60	50,00	3,00	97,56
80403	1A4c	Fishing	Gasoline		2,28	64,34	10809,60	23,25
80403	1A4c	Fishing	LPG		0,00	1249,00	384,90	12,44
80404	Memo item	International sea traffic	Residual oil		1681,38	2127,10	56,90	200,50
80404	Memo item	International sea traffic	Diesel		468,38	2037,50	54,50	42,15
80501	1A3a	Air traffic, other airports	Jet fuel	Dom. < 3000 ft	2,30	286,15	18,05	1,16
80501	1A3a	Air traffic, other airports	Aviation gasoline		4,57	859,00	1242,60	10,00
80502	Memo item	Air traffic, other airports	Jet fuel	Int. < 3000 ft	2,30	299,62	15,06	1,16
80502	Memo item	Air traffic, other airports	Aviation gasoline		4,57	859,00	1242,60	10,00
80503	1A3a	Air traffic, other airports	Jet fuel	Dom. > 3000 ft	2,30	276,36	12,96	1,16
80504	Memo item	Air traffic, other airports	Jet fuel	Int. > 3000 ft	2,30	242,75	6,19	1,16
806	1A4c	Agriculture	Diesel		23,42	1219,65	183,26	124,99
806	1A4c	Agriculture	Gasoline		2,28	244,33	1022,05	23,25
807	1A4c	Forestry	Diesel		23,42	1033,31	195,44	126,23
807	1A4c	Forestry	Gasoline		2,28	48,66	18095,47	23,25
808	1A2f	Industry	Diesel		23,42	1131,35	155,37	105,35
808	1A2f	Industry	Gasoline		2,28	48,66	3096,74	23,25
808	1A2f	Industry	LPG		0,00	621,12	838,51	12,44
809	1A4b	Household and gardening	Gasoline		2,28	213,71	3726,00	23,25
80501	1A3a	Air traffic, Copenhagen airport	Jet fuel	Dom. < 3000 ft	2,30	280,58	24,21	1,16
80501	1A3a	Air traffic, Copenhagen airport	Aviation gasoline		4,57	859,00	1242,60	10,00
80502	Memo item	Air traffic, Copenhagen airport	Jet fuel	Int. < 3000 ft	2,30	330,71	36,63	1,16
80502	Memo item	Air traffic, Copenhagen airport	Aviation gasoline		4,57	859,00	1242,60	10,00
80503	1A3a	Air traffic, Copenhagen airport	Jet fuel	Dom. > 3000 ft	2,30	286,82	14,32	1,16
80504	Memo item	Air traffic, Copenhagen airport	Jet fuel	Int. > 3000 ft	2,30	308,99	11,26	1,16

[3] References. SO_2: Country specific; Railways (NO_x, NMVOC and TSP): Danish State Railways; Remaining sectors (NO_X, NMVOC and TSP EMEP/CORINAIR

Calculation method

Air traffic

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. The overall fuel precision in the model is around 0.8 derived as the fuel ratio between model estimates and statistical sales. The fuel difference is accounted for by adjusting the cruise fuel use and emissions in the model according to the domestic and international cruise fuel shares.

Prior to 2001 the calculation scheme was to first estimate each year's fuel use and emissions for LTO. Secondly, the total cruise fuel use was found year by year as the statistical fuel use total minus the calculated fuel use for LTO. Lastly, the cruise fuel use was 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).

A more thorough documentation of the emission calculations for civil aviation will be given in the sector report for the 2003 inventory.

Non-road working machinery and equipment

The emissions from non-road working machinery and equipment are calculated by combining information from the number of different machine types and their respective load factors, engine sizes, annual working hours and emission factors. For gasoline and LPG no emission directives have currently come into force and the emission calculations are carried out using equation 3.14:

$$E = N \cdot HRS \cdot HP \cdot LF \cdot EF \quad (3.14)$$

Where F = fuel use, N = number of engines, HRS = annual working hours, HP = average rated engine size in kW, LF = load factor and FC = emission factor in g/kWh.

For diesel the simulations take into account the implementation of a two-stage emission legislation directive for NO_X, VOC, CO and TSP depending on engine size. Stage I and II of the directive becomes effective for new machinery in use in 1999-2001 and 1999-2003 respectively.

In a specific year the weighted emission factors for each equipment type rely on the fractions of conventional Stage I and Stage II engine technologies in use. Due to lack of data it is assumed that all engines in a specific group have the same lifetime period.

If for a certain inventory year the lifetime period predicates the existence of conventional, Stage I and Stage II engine technologies in the machinery stock, new sales of Stage II technology in a $X_{Stage\ II}$ year period forms the newest part of the stock. Before that, in a period of $X_{Stage\ I}$ years, new sales of Stage I technology took place, and the remaining conventional types was sold in a X_{Conv} year period. The sum of the three periods gives the lifetime period, and the aggregated emission factor then becomes:

$$EF = \frac{(X_{Conv} \cdot EF_{Conv} + X_{StageI} \cdot EF_{StageI} + X_{StageII} \cdot EF_{StageII})}{LT} \quad (3.15)$$

Where EF = emission factor in g/kWh, X = number of years with new sales of one technology and LT = lifetime.

In specific cases where inventory years are before Stage I or Stage II implementation years, no contributions from the latter technologies go into equation 15. The emissions are calculated by inserting (3.15) into (3.14).

Other sectors

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:

$$E = FC \cdot EF \quad (3.16)$$

Where E = emission, FC = fuel consumption, EF = emission factor.

The calculated emissions for other mobile sources are shown in CollectER format in Annex 2.B.9 for the years 1990 and 2003, and as time-series 1985-2003 in Annex 2.B.13 (NFR format).

Bunkers

The distinction between domestic and international emissions from aviation and navigation should be in accordance with the Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories. For the national emission inventory this, in principle, 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.

Aviation

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. In Greenland and in the Faroe Islands the jet fuel sold is treated as domestic. This decision becomes sensible since in the real world almost no fuel is bunkered in Greenland/Faroe Islands by other flights than those going to Denmark.

Navigation

In DEA statistics the domestic fuel total consists of fuel sold to Danish ferries and other ships sailing between two Danish ports. The DEA international fuel total consists of the fuel sold in Denmark to international ferries, international warships, other ships with foreign destinations, transport to Greenland and the Faroe Islands, tank vessels and foreign fishing boats.

In Greenland all marine fuel sales are treated as domestic. In the Faroe Islands the fuel sold in Faroese ports for Faroese fishing vessels and other Faroese ships is treated as domestic. The fuel sold to Faroese ships bunkering outside Faroese waters and the fuel sold to foreign ships in Faroese ports or outside Faroese waters is classified as international (Lastein and Winther, 2003).

To comply with the IPCC classification rules the fuel used by vessels sailing to Greenland and the Faroe Islands should be a part of the domestic total. To improve the fuel data quality for Greenland and the Faroe Islands the fuel sales should be grouped according to vessel destination and IPCC classifications made, subsequently.

Conclusively the domestic/international fuel split (and associated emissions) for navigation is not determined with the same precision as for aviation. It is considered, however, that the potential of incorrectly allocated fuel quantities is only a small part of the total fuel sold for navigation purposes in the Kingdom of Denmark.

3.3.3 Uncertainties and time-series consistency

Uncertainty estimates for greenhouse gases 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 (Pulles et al., 2000). However, for TSP the latter source indicate no uncertainty factor, and instead this factor is based on own judgement.

The activity data uncertainty factor 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 PM2.5 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 2.B.14 for all emission components.

Table 3.28 Uncertainties for activity data, emission factors and total emissions in 2003 and as a trend

	Emission factor uncertainties [%]		Emission uncertainties [%]	
Pollutant	Road	Other	Overall 2003	Trend
SO_2	50	50	46	5
NO_X	50	100	54	7
NMVOC	50	100	52	16
CO	50	100	46	8
NH_3	1000	1000	998	1173
TSP	50	100	59	9
Arsenic	1000	1000	1000	9
Cadmium	1000	1000	794	141
Chromium	1000	1000	793	146
Copper	1000	1000	839	99
Mercury	1000	1000	1000	13
Nickel	1000	1000	863	67
Lead	1000	1000	954	15
Selenium	1000	1000	758	115
Zinc	1000	1000	818	112
Dioxins	1000	1000	713	123
Flouranthene	1000	1000	781	46
Benzo(b) flouranthene	1000	1000	777	14
Benzo(k) flouranthene	1000	1000	822	155
Benzo(a) pyrene	1000	1000	854	69
Benzo(g,h,i) perylene	1000	1000	784	47
indeno(1,2,3-c,d) pyrene	1000	1000	761	16

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 anyhow in this part of the transport inventory.

The time-series of emissions for mobile machinery 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, since DEA statistical figures do not explicitly provide fuel use information for working equipment and machinery.

For 1990 and 2000 background activity data (stock and operation) exists, but for the years in between 1990 and 2000 and for the years beyond 2000 data is presently missing. For consistency pur-

poses for the years prior to 1990 and after 2000, the fuel use estimates for 1990 and 2000 are used. By interpolation the two latter figures are also used to make fuel use estimates for the years in between.

The strengthening of emission standards for diesel machinery is taken into account by using specific lifetime periods and emission directive implementation years. From this the share of different emission levels per machinery type can be found in a given year.

3.3.4 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 paragraph 3.3.2.1 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 paragraph 3.3.2.3) ensures that no double counting of emissions is made.

For the remaining transport sectors the simple method ensures 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 significant changes are checked and explained. Moreover, a comparison is made to the previous year's estimate and any major changes are verified. As a last point, a data transfer control is made from SNAP source categories to aggregated NFR source categories.

A sector report for road transport and other mobile sources is published each year. Prior to it's publication the draft report is reviewed by two external experts. The expert recommendations are used to improve the work on inventories and documentation. Some important recommendations to the 2002 sector report were to include tables with emission factors and total emissions in the main report part, and to explain the level of fuel differences for road transport and civil aviation according to fuel balance. These recommendations have subsequently been incorporated in the 2002 sector report (Winther, 2004) and the present UNECE report.

The recommendations of the reviewers are also to include some text in the sector report for each transport mode explaining the existing emission legislation and the associated emission test procedures. In addition more documentation of background data and trends should be given in cases where Tier2 estimates are made. These recommendations will be considered in the next sector and UNECE reports.

Formal agreements of data deliverance have been made between NERI as an inventory agency and relevant institutions to ensure the provision of consistent, accurate and timely background data used in the national inventory. The institutions are the Danish State Railways (DSB) (emission factors for diesel locomotives), CAA-DK (flight data) and DEA (energy statistics). At the moment a formal agreement is being negotiated with the Danish Ministry of Transport (road transport fleet and mileage data).

The QA/QC and validation of the inventories for the transport sector will be implemented as part of the work that has been initiated for the Danish inventory as a whole. Implementation will start in 2005.

3.3.5 Recalculations

The following recalculations and improvements of the emission inventories have been made since the emission reporting in 2003:

Road transport

For the years 2000-2002 the division of the moped fleet into EURO categories has been changed due to better information from the Danish Motorcycle Association. In addition the fuel consumption factors for EURO I and II mopeds have been corrected for the same years.

Also for 2000-2002 the general gasoline RVP value has been changed to 60 for the month of September, according to information from the Danish EPA.

For 1990-2001 the POP emission factors have been updated in order to correct errors in the inventories for these years.

Railways

An update of the NO_X, NMVOC, CH_4, CO and PM emission factors for diesel are made for 2002. Previously 2001 factors were used for the year 2002 to compensate for missing data.

Agriculture/Forestry/Fisheries

An internal redistribution of gasoline fuel consumption is made. Small amounts of gasoline that appeared in the sub-sector fisheries (in some inventory years) are now accounted for in the road transport sector.

Civil Aviation

Several new turboprops are included in the list of representative aircraft for civil aviation based on new information in the EMEP/CORINAIR guidebook. This change has an impact on the fuel use split between domestic and international aviation and the emission factors used.

Navigation

For 2002 the diesel fuel use for navigation has been updated according to the official Danish energy statistics from DEA.

3.3.6 Improvements

Taking into account emission source importance, background data available and time resources, the following list of improvements will be made in the future.

Non-road machinery

The TSP, NO_X, CO and NMVOC emissions from agricultural and industrial working machines account for 72, 55, 29 and 27% of the total Danish emissions from other mobile sources in 2003, whereas the CO and NMVOC shares for household and gardening working equipment are 47 and 17%. Considering these relative emission importances's an update of the vehicle stock and operational data for non-road machines in agriculture, forestry, industry and household and gardening is essential. The considered time-series will cover the period from 1990 to the latest historical year. In addition a review will be made of the emission factors used.

Fisheries

Since fishing vessels account for 26 and 21% of the total Danish SO_2 and NO_X emissions from other mobile sources in 2003, the calculation method for fisheries will be made based on detailed data for vessel numbers.

Emission factors

A review will be made of the emission factors behind the largest emission sources for transport in the Danish inventories.

Documentation

For all modes of transport the existing emission legislation will be documented, and emission test procedures will be explained whenever possible. It is also planned to explain background data and trends more thoroughly in cases where Tier2 estimates are made.

QA/QC

Future improvements regarding this issue are dealt with in Section 3.3.4.

3.3.7 References for Chapter 3.3

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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 doses 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 oil (1B2a)

The category 'Fugitive emissions from oil (1B2a)' includes emissions from offshore activities and refineriFugitive emissions from oil (1.B.2.a).

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

In the year 2003 the length of transmission pipelines excluding offshore pipeline was 830 km. The length of distribution pipelines is 18120 km in 2002 (cast iron 0 km, steel 2185 km, plastics 15935 km). The distribution data have not been updated this year. Two natural gas storages are in operation in Denmark. In 2003 the gas input was 384 Mm^3 and the withdrawal was 433 Mm^3. Emission from gas storage is included in transmission.

3.4.1.4 Flaring, gas (NFR sector 1B2c, Flaring ii)

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 inventory for coal storage has been based on data for coal import referring to the official Danish energy statistics (DEA 2004b). The emission factor for CO refers to Haaland 1992 and the factors for PM refer to the TNO CEPMEIP emission factor database.

Table 3.29 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
2003	9360791	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. (In Danish)
2) TNO CEPMEIP database

3.4.2.2 Fugitive emissions from oil (1B2a)

Offshore activities

Emissions from offshore activities include emissions from extraction of oil and gas, on-shore oil tanks, on-shore and offshore loading of ships

The total emission can then be expressed as:

$$E_{total} = E_{extraction} + E_{ship} + E_{oil\,\tan ks} \qquad (3.5.1)$$

Fugitive emissions from extraction

According to the Guidebook the total fugitive emissions of VOC from extraction can be estimated by means of equation 3.5.2.

$$E_{VOC,fugitive} = 40.2 \cdot N_P + 1.1 \cdot 10^{-2} P_{gas} + 8.5 \cdot 10^{-6} \cdot P_{oil} \qquad (3.5.2)$$

where N_P is the number of platforms, P_{gas} (10^6 Nm^3) is the production of gas and P_{oil} (10^6 tons) is the production of oil.

It is assumed that the VOC contains 75% methane and 25% NMVOC meaning that the total emissions of CH_4 and NMVOC for extraction of oil and gas can be calculated as:

$$E_{extraction,NMVOC} = E_{fugitive,NMVOC} + E_{flaring,NMVOC} \\ = 0.25(40.2 \cdot N_P + 1.1 \cdot 10^{-2} P_{gas} + 8.5 \cdot 10^{-6} \cdot P_{oil}) + F_P \cdot EMF_{flaring,NMVOC} \quad (3.5.3)$$

$$E_{extraction,CH4} = E_{fugitive;CH4} + E_{flaring,CH4} \\ = 0.75(40.2 \cdot N_P + 1.1 \cdot 10^{-2} P_{gas} + 8.5 \cdot 10^{-6} \cdot P_{oil}) + F_P \cdot EMF_{flaring,CH4} \quad (3.5.4)$$

In Denmark venting of gas is assumed to be negligible because controlled venting is send through the gas flare system.

Ships

This source includes the transfer of oil from storage tanks or directly from the well into a ship. This activity also includes losses during transport. When oil is loaded hydrocarbon vapour will be displaced by oil and new vapour will be formed, both leading to emissions. The emissions from ships are calculated by equation 3.5.5.

$$E_{ships} = EMF_{ships} \cdot L_{oil} \quad (3.5.5)$$

where EMF_{ships} is the emission factor for loading of ships off-shore and on-shore and L_{oil} is the amount of oil loaded.

Oil tanks

The emissions from storage of raw oil are calculated by equation 3.5.6.

$$E_{tanks} = EMF_{tanks} \cdot T_{oil} \quad (3.5.6)$$

where EMF_{tanks} is the emission factor for storage of raw oil in tanks.

Activity data

Activity data used in the calculations of the emissions is shown in Table 3.30 and is based on information from the Danish Energy Authority (Danish Energy Authority, 2004a and 2004b) or from the green accounts from the Danish gas transmission company DONG (DONG, 2004).

Table 3.30. Activity data for 2003

Activity	Symbols	Year	
		2003	Ref.
Number of platforms	N_p	48	Danish Energy Agency (2004a)
Produced gas (10^6Nm3)	P_{gas}	10213	Danish Energy Agency (2004a)
Produced oil(10^3m3)	$P_{oil,vol}$	21327	Danish Energy Agency (2004a)
Produced oil (10^3ton)	P_{oil}	18341	Danish Energy Agency (2004a)
Oil loaded (10^3m3)	$L_{oil\ off\text{-}shore}$	3308	Danish Energy Agency (2004a)
Oil loaded (10^3ton)	$L_{oil\ off\text{-}shore}$	2845	Danish Energy Agency (2004a)
Oil loaded (10^3m3)	$L_{oil\ on\text{-}shore}$	13362	DONG (2004)
Oil loaded (10^3ton)	$L_{oil\ on\text{-}shore}$	11491	DONG (2004)

Mass weight raw oil = 0.86 ton/m^3

In the EMEP/CORINAIR Guidebook (Richardson, 1999) emission factors for different countries are given. In the Danish emission inventory the Norwegian emission factors are used (Table 3.31) (Flugsrud et al., 2000). The emissions for storage of oil are given in the green accounts from DONG for 2003 (DONG, 2004) and the emission factor is calculated on the basis of the amount of oil transported in pipeline.

Table 3.31. Emission factors.

	CH_4	NMVOC	Unit	Reference.
Ships off-shore	0,00005	0,001	Fraction of loaded	Richardson, 1999
Ships on-shore	0,000002	0,0002	Fraction of loaded	Richardson, 1999
Oil tanks	113	249	kg/10^3m^3	DONG, 2004

From the activity data in Table 3.30 and the emission factors in Table 3.31 the emissions for NMVOC and CH4 are calculated in Table 3.32.

Table 3.32. CH_4 emissions for 2003 (tonnes):

	CH_4	NMVOC
Extraction (fugitive)	1524	508
Oil tanks	2000	4407
Off-shore loading of ships	142	2845
On-shore loading of ships	23	2298
Total	**3689**	**10058**

Oil Refineries

Petroleum products processing: In the production process at the refineries a part of the volatile hydrocarbons (VOC) is emitted to the atmosphere. It is assumed that CH_4 accounts for 1% and NMVOC for 99% of the emissions. The VOC emissions from the petroleum refinery processes cover non-combustion emissions from feed stock handling/storage, petroleum products processing, product storage/handling and flaring. SO_2 is also emitted from the non-combustion processes and includes emissions from products processing and sulphur recovery plants. The emission calculations are based on information form the Danish refineries and the energy statistic.

Table 3.33 Oil Refineries. Processed crude oil, emissions and emission factors

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Crude oil (1000 Mg)	7263	7798	8232	8356	8910	9802	10522	7910	7906	8106	8406	8284	8045	8350
CH4 emission (Mg)	37	39	42	43	57	48	62	45	45	45	50	44	43	37
CH4 emission factor (g/Mg)	5	5	5	5	6	5	6	6	6	6	6	5	5	4
NMVOC emission (Mg)	3667	3937	4203	4219	5855	4546	5875	4547	4558	4558	4983	4338	4302	3708
NMVOC emission factor (g/Mg)	505	505	511	505	657	464	558	575	577	562	593	524	535	444

3.4.2.3 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 1999-2003 reported by the Danish gas sector (transmission and distribution companies) (Karll 2003, Karll 2004). The inventories estimated by the Danish gas sector are based on the work carried out by Marcogas and the International Gas Union (IGU). Data for gas distribution have not been updated this year, and instead the 2002 data are applied for 2003.

In the 1990-1999 inventories fugitive NMVOC emissions from storage facilities and the gas treatment plant have been included in the emission factor for transmission. In the 2000-2003 emission inventories transmission, gas storage and gas treatment are registered separately and added.

Gas transmission data are shown in Table 3.34. The emission from gas storage facilities and venting in the gas treatment plant is shown in Table 3.35. Gas distribution data are shown in Table 3.36.

Table 3.34 NMVOC emission from natural gas transmission

TRANSMISSION		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Transmission rate Mm^3	1)	2739	3496	3616	3992	4321	4689	5705	6956	6641	6795	7079	7289	7287	7275
NMVOC emission Mg	2)		94	28	57	46	163	56	72	45	56	26	48	24	27
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	3,688

1. In 1990-1997 transmission rates refers to Danish energy statistics, in 1998 transmission rate refers to the annual environmental report of DONG, in 1999-2003 emissions refers to DONG/Danish Gas Technology Centre (Karll 2003, Karll 2004)
2. Calculation based on the CH_4 emission and the average gas quality in the year 2000. In 1991-95 CH_4 emissions are based on the annual environmental report from DONG for the year 1995. In 1996-99 the CH_4 emission refers to the annual environmental reports from DONG for the years 1996-99. In 2000-2003 the CH_4 emission refers to DONG/Danish Gas Technology Centre (Karll 2003, Karll 2004)
3. EF=Emission/transmission_rate. In 1990 the IEF is assumed to be the same as in 1991

Table 3.35 Additional fugitive NMVOC emissions from natural gas storage facilities and venting in the gas treatment plant

	2000	2001	2002	2003
Gas treatment plant	2,27 Mg	0 Mg	0 Mg	0 Mg
Gas storage facilities	23,05 Mg	21,96 Mg	20,00 Mg	19 Mg

Table 3.36 NMVOC emission from natural gas distribution

DISTRIBUTION		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Distribution rate Mm^3	1)	1574	1814	1921	2185	2362	2758	3254	3276	3403	3297	3181	3675	3420	3420
NMVOC emission Mg	2)										13,11	14,94	17,07	11,86	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	3,47

1. In 1999-2003 distribution rates refers to DONG / Danish Gas Technology Centre / Danish gas distribution companies (Karll 2003, Karll 2004), 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 CH_4 emission and the average gas quality in the year 2000. The CH_4 emission for 1999-2003 is based on Karll 2003 and Karll 2004
3. In the years 1999-2003 IEF=CH_4 emission / distribution rate. In 1990-1998 an average IEF of 1999-2001 is assumed.

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

Emissions from off shore flaring have been estimated based on data for fuel consumption from the Danish energy statistics (DEA 2004b) and emission factors for flaring. The emissions from flaring in gas treatment and gas storage plants have been estimated based on annual environmental reports of the plants.

The fuel consumption rates for offshore flaring are shown in Table 3.37. Flaring rates in gas treatment and gas storage plants are not available until 1995.

The emission factors for off shore flaring are shown in Table 3.38. The same emission factors have been applied for 1990-2003. The emission time-series fluctuates due to fluctuation in offshore flaring rates.

Table 3.37 Natural gas flaring rate (DEA 2004b)

Year	Flaring, offshore [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
2003	9333	33

Table 3.38 Emission factors for offshore flaring of natural gas

Pollutant	Emission factor	
SO_2	0,3	g/GJ
NO_X	300	g/GJ
NMVOC	3	g/GJ
CO	25	g/GJ
TSP	0,1	g/GJ
PM_{10}	0,1	g/GJ
$PM_{2.5}$	0,1	g/GJ

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 have been performed.

3.4.5 Source-specific recalculations

No recalculations have been carried out.

3.4.6 Source-specific planned improvements

No source-specific improvements are planned.

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TNO CEPMEIP PM emission factor database 2003, available on the internet at: http://www.air.sk/tno/cepmeip (03-05-2005).

4 Industrial processes (NFR sector 2)

4.1 Overview of the sector

The present sector *"Industrial processes"* (NFR sector 2) 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 steelworks as well as a number of small companies e.g. iron foundries. Further, to be included are asphalt concrete plants.

Table 4.1 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 survey. Explanations to the abbreviations are given below the table. Table 4.1 indicates that some groups of substances are planned to be included in the 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 inventory.

Table 4.1 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	y	x	x	x	x	-
Glass wool	030316	1A2f	ie	x/+	-	x	+	-
Mineral wool	030318	1A2f	y	x/+	-	x	+	-
Paper mill industry	030321	1A2d	y	-	+	x	-	-
Electric arc furnace	040207	2C1	-	-	-	x	x	+/?
Allied metal manufacturing	040306	2C5	-	-	-	+	x	-
Sulphuric acid	040401	2B5	-	x	-	-	-	-
Nitric acid	040402	2B2	y	x	-	x	-	-
NPK-fertiliser	040407	2B5	-	ie	ie	ie	ie	-
Other (catalysts)	040416	2B5	y	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, slaughterhouse waste)	040617	2A7	y	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/Slaughterhouse waste)

The time-series for emission of acidifying substances, heavy metals, NMVOC and particulate matter from *Mineral products* (NFR 1A2f/2A) are presented in Table 4.2 and Table 4.3.

The emission of SO_2, 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 SO_2 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 slightly whereas the emission of CO is decreasing in the period 1997-2003. 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. 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. NH_3 shows a decreasing trend from 1996-2003 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 inventory.

Table 4.2 Time-series for different pollutants from *Mineral products* (metals: kg and other pollutants: tonnes).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Cement (1A2f/2A1)														
SO_2	1458	1799	1993	2020	2018	2046	2177	3039	2731	1527	1091	1592	935	882
NO_x	6480	7995	8856	8977	8970	9095	9676	9677	9984	8962	9945	9774	8903	8401
NMVOC	84,3	102	111	111	117	122	119	122	114	96,8	103	89,4	95,0	77,0
CO	1458	1799	1993	2020	2018	2046	2177	2681	5312	3450	4014	2947	1169	1103
TSP											294	311	185	175
PM_{10}											265	280	166	157
$PM_{2.5}$											118	124	73,9	69,8
As	32,4	40,0	44,3	44,9	44,8	45,5	48,4	54,4	55,1	51,2	52,3	53,2	54,0	50,9
Cd	11,3	14,0	15,5	15,7	15,7	15,9	16,9	19,0	19,3	17,9	18,3	18,6	18,9	17,8
Cr	16,2	20,0	22,1	22,4	22,4	22,7	24,2	27,2	27,5	25,6	26,1	26,6	27,0	25,5
Cu	16,2	20,0	22,1	22,4	22,4	22,7	24,2	27,2	27,5	25,6	26,1	26,6	27,0	25,5
Hg	97,2	120	133	135	135	136	145	163	165	154	157	160	162	153
Ni	32,4	40,0	44,3	44,9	44,8	45,5	48,4	54,4	55,1	51,2	52,3	53,2	54,0	50,9
Pb	16,2	20,0	22,1	22,4	22,4	22,7	24,2	27,2	27,5	25,6	26,1	26,6	27,0	25,5
Se	11,3	14,0	15,5	15,7	15,7	15,9	16,9	19,0	19,3	17,9	18,3	18,6	18,9	17,8
Zn	81,0	100	111	112	112	114	121	136	138	128	131	133	135	127
Lime (1A2f/2A2)														
TSP											30,0	31,6	40,4	29,8
PM_{10}											15,0	15,8	20,2	14,9
$PM_{2.5}$											3,00	3,16	4,04	2,98
Container glass (1A2f/2A7)														
SO_2	71,7	69,5	63,4	61,4	65,6	61,2	61,2	0,30	0,28	0,42	0,37	0,37	0,32	0,31
NO_x	-	-	-	-	-	-	-	417	265	386	390	417	417	397
NMVOC	1,48	1,43	1,31	1,26	1,35	1,26	1,26	1,85	1,81	2,02	2,21	2,18	2,03	1,89
CO	-	-	-	-	-	-	-	7,71	16,3	17,2	6,60	7,71	7,71	6,02
TSP											26,0	25,0	25,0	26,0
PM_{10}											23,0	23,0	23,0	23,0
$PM_{2.5}$											21,0	20,0	20,0	21,0
Pb	1164	1081	928	857	856	1512	700	172	418	562	330	172	172	272
Se	328	302	261	239	255	448	210	271	72,0	218	340	271	271	234
Zn	164	143	116	98,4	105	168	70,0	25,0	39,0	45,0	57,0	25,0	25,0	25,0
Glass wool (1A2f/2A7)														
NH3	-	-	-	-	-	-	224	296	266	268	225	190	133	125
TSP											111	119	114	102
PM_{10}											100	107	103	92,0
$PM_{2.5}$											78,0	83,0	80,0	71,0

Table 4.3 Time-series for different pollutants from *Mineral products* (Metals: kg and other pollutants: tonnes).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Mineral wool (1A2f)														
SO_2	-	-	-	-	-	599	566	592	641	658	601	564	496	464
NO_x	-	-	-	-	-	214	202	212	229	235	116	109	96,7	89,1
NMVOC	-	-	-	-	-	12,5	11,8	12,4	13,4	13,7	12,6	11,8	10,5	9,95
CO	-	-	-	-	-	10750	10233	10817	11665	11886	11281	10590	9163	8137
NH_3	-	-	-	-	-	265	251	265	286	292	272	254	225	209
TSP											71	80	81	103
PM_{10}											64	72	73	93
$PM_{2.5}$											50	56	57	72
As	-	-	-	-	-	3,00	2,83	2,98	3,22	3,30	3,02	2,83	2,52	2,22
Cd	-	-	-	-	-	0,09	0,09	0,09	0,10	0,10	0,09	0,09	0,08	0,07
Cr	-	-	-	-	-	2,16	2,04	2,14	2,32	2,37	2,17	2,03	1,81	1,59
Cu	-	-	-	-	-	2,91	2,75	2,89	3,12	3,19	2,93	2,74	2,44	2,15
Hg	-	-	-	-	-	1,59	1,51	1,58	1,71	1,75	1,60	1,50	1,34	1,18
Ni	-	-	-	-	-	4,12	3,90	4,10	4,43	4,53	4,15	3,89	3,46	3,05
Pb	-	-	-	-	-	5,62	5,31	5,59	6,04	6,18	5,66	5,30	4,72	4,16
Se	-	-	-	-	-	0,47	0,44	0,47	0,50	0,52	0,47	0,44	0,39	0,35
Zn	-	-	-	-	-	9,84	9,30	9,78	10,6	10,8	9,91	9,28	8,26	7,28
Chemical ingredients (2A7)														
NMVOC	-	-	-	-	-	-	100	93,0	103	62,0	40,0	18,0	18,0	18,0
Sugar (2A7)														
TSP											191	189	172	-[1]
PM_{10}											47,8	47,3	43,0	-[1]
$PM_{2.5}$											7,64	7,56	6,88	-[1]
Treatment of slaughterhouse waste (2A7)														
NH_3	24,2	32,4	32,2	35,1	32,1	31,5	31,2	30,0	31,4	36,3	34,0	31,9	47,9	157

1. TSP, PM_{10} and $PM_{2.5}$ are considered as combustion related emissions and therefore calculated as emissions from combustion plants ≥50 and <300 MW (boilers).

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 SO_2, NO_X, CO and TSP from production of cement are measured yearly from 1997 to 2003 (TSP from 2000 to 2003). PM_{10} and $PM_{2.5}$ are estimated from the distribution between TSP, PM_{10} 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 equivalents[4]) and emission factors from the company Aalborg Portland (Aalborg Portland, 2004). 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 M tonnes TCE in 1990 to 2.5 ton TCE in 2003.

[4] 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.

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 2003) (Rexam Glass Holmegaard, 2004). PM_{10} and $PM_{2.5}$ are estimated from the distribution between TSP, PM_{10} and $PM_{2.5}$ from CEPMEIP (2003). For 1990 to 1996 emissions of arsenic, cadmium, chromium, copper, mercury, and nickel are estimated from standard emission factors and activity data. For 1997 to 2003 the emissions are estimated from emission factors and the actual energy consumption. This change in methodology results in gab in the emission trend that can not be explained by natural factors. 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 NH_3 and TSP from production of glass wool has been measured yearly from 1996 to 2003 (TSP from 2000 to 2003) (Saint-Gobain Isover, 2004). PM_{10} and $PM_{2.5}$ are estimated from the distribution between TSP, PM_{10} and $PM_{2.5}$ from CEPMEIP (2003). The activity has varied between 33.600 and 39.600 tonne glass wool from 1996 to 2002 and in the same period the emission has decreased from approximately 300 to 125 tonne NH_3.

The emission of NMVOC from production of chemical ingredients has been measured from 1996 to 2003 (Danisco Grindsted, 2004). The emission has decreased from 100 to 20 tonnes 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 4.2 and Table 4.3. 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 have been verified and order of magnitude confirmed by comparison with standard emission factors (EMEP/CORINAIR, 2004; CEPMEIP, 2003). No formal source-specific QA/QC has been performed.

4.2.5 Source-specific recalculations

The inventory has been changed for glass production for 1997 to 2003 to relate the emissions to fuel consumption. However, this change leads to inconsistency in the trend and therefore a consistent methodology will be applied in the next inventory.

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. The inconsistent methodology applied for emission of As, Cd, Cr, Cu, Hg, and Ni from glass production will be improved.

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 4.4.

Table 4.4 Time-series for different pollutants from *Chemical industry* (tonnes).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Nitric acid / Fertiliser (2B2/2B5)														
SO_2	327	150	139	164	215	217	77,0	3,00	-[1]					
NO_x	806	742	655	583	600	612	504	571	419	451	413	410	397	459
NH_3	12,0	22,0	35,0	49,0	91,0	62,0	62,0	37,0	12,0	24,0	13,0	30,0	50,0	56,0
TSP											362	346	310	323
PM_{10}											290	277	248	258
$PM_{2.5}$											217	208	186	194
Catalysts / Fertiliser (2B5)														
NO_X	-	-	-	-	-	-	39,2	40,0	52,8	53,6	37,6	21,6	30,0	22,0
NH_3	-	-	-	-	-	-	13,0	13,0	13,0	9,00	14,0	71,0	43,0	57,0
Pesticides (2B5)														
NMVOC	390	150	62,0	40,0	54,0	57,0	113	44,0	40,0	41,0	29,0	29,0	26,7	25,4

1. Production of sulphuric acid stopped in 1997.

The time-series for SO_2 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 2003. The emission of NH_3 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 2003 whereas the emission of NH_3 increases. Fluctuation and increase of the "emission factor" can explain the increase in NH_3 emission.

The emission of NMVOC from production of pesticides has been reduced significantly from 1990 to 2003. 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 SO_2, NO_X, NH_3, and TSP from production of sulfuric acid, nitric acid and fertiliser are measured yearly or estimated from 1990 to 2003 (TSP from 2000 to 2003) (Kemira GrowHow, 2004). PM_{10} and $PM_{2.5}$ are estimated from the distribution between TSP, PM_{10} and $PM_{2.5}$ from CEP-

MEIP (2003). The emission for SO_2 and NO_X for 1991 to 1993 was estimated by using interpolated emission factors and activity data. Production of sulphuric acid was stopped in 1997. The emission factor for SO_2 was fluctuating and the emission factor for NO_X was decreasing from 1990 to 2003. The production of sulphuric acid was decreasing from approximately 150,000 to 60,000 tonne between 1990 and 1996 and the production of nitric acid was decreasing from approximately 450,000 to 390,000 tonne between 1990 and 2003. The overall production of fertiliser was decreasing from approximately 800,000 to 520,000 tonne between 1990 and 2003.

The emission of NH_3, NO_X and TSP from production of catalysts and fertilisers are measured yearly from 1996 to 2003 (TSP from 2000 to 2003) (Haldor Topsøe, 2004). PM_{10} and $PM_{2.5}$ are estimated from the distribution between TSP, PM_{10} 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 NH_3 shows an increasing trend and varies between 13 and 57 tonne from 1996 to 2003. In the same period the production of catalysts and fertilisers increased from approximately 33,000 to 35,000 tonne.

The emission of NMVOC from production of pesticides is measured yearly from 1990 to 2000 (Cheminova, 2004) and estimated for 2001 to 2003. Emission factor based on 2000 figures is used for estimation of 2001 to 2003 emissions. The emission of NMVOC shows a decreasing trend from 1990 to 2003.

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, 2004).

4.3.5 Source-specific recalculations

No source-specific recalculations have been performed for the sector Chemical Industry.

4.3.6 Source-specific planned improvements

The time-series for emission of NO_X and NH_3 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 4.5.

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

Table 4.5 Time-series for different pollutants from *Metal production* (metals: kg and particulate matter: tonnes).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Steelworks (2C1)														
TSP											41,0	93,0	-[1]	
PM_{10}											39,0	88,0	-[1]	
$PM_{2.5}$											25,0	56,0	-[1]	
Cd	-	-	-	-	-	-	42,0	30,0	38,1	2,43	20,0	36,0	-[1]	
Cr	-	-	-	-	-	-	7,00	0,00	1,00	0,00	0,00	0,00	-[1]	
Hg	-	-	-	-	-	-	147	84,0	60,6	49,5	90,0	184	-[1]	
Ni	-	-	-	-	-	-	294	228	112	86,1	60,0	123	-[1]	
Pb	-	-	-	-	-	-	728	636	373	667	440	871	-[1]	
Zn	-	-	-	-	-	-	5782	5022	2416	2121	1390	2786	-[1]	
Iron foundries (1A2a)														
TSP											193	171	175	175
PM_{10}											57,8	51,4	52,4	52,4
$PM_{2.5}$											8,68	7,71	7,86	7,86
As	30,9	-	-	-	-	-	-	25,5	25,7	25,8	28,9	25,7	26,2	26,2
Cd	14,4	-	-	-	-	-	-	11,9	12,0	12,0	13,5	12,0	12,2	12,2
Cr	113	-	-	-	-	-	-	93,6	94,4	94,6	106	94,3	96,0	96,0
Ni	134	-	-	-	-	-	-	111	112	112	125	111	113	113
Pb	742	-	-	-	-	-	-	613	618	619	694	617	629	629
Se	515	-	-	-	-	-	-	426	429	430	482	429	437	437
Zn	515	-	-	-	-	-	-	426	429	430	482	429	437	437
Secondary lead (1A2b)														
TSP											1,50	1,50	1,50	1,50
PM_{10}											1,43	1,43	1,43	1,43
$PM_{2.5}$											0,75	0,75	0,75	0,75
Cd	0,09	-	-	-	-	-	-	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	1,10
Pb	8,75	-	-	-	-	-	-	8,75	8,75	8,75	8,75	8,75	8,75	8,75
Secondary zinc (1A2b)														
TSP											0,63	0,63	0,61	0,58
PM_{10}											0,50	0,50	0,49	0,47
$PM_{2.5}$											0,38	0,38	0,36	0,35
Zn	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Secondary aluminium (1A2b)														
TSP											32,1	32,6	30,5	23,7
PM_{10}											28,9	29,3	27,5	21,4
$PM_{2.5}$											13,0	13,2	12,4	9,61
Allied metal manufacturing (2C5)														
Cd	3,90	-	-	-	-	-	-	4,53	4,53	4,53	4,53	4,53	4,53	4,53
Cu	39,0	-	-	-	-	-	-	45,3	45,3	45,3	45,3	45,3	45,3	45,3
Pb	58,4	-	-	-	-	-	-	68,0	68,0	68,0	68,0	68,0	68,0	68,0
Zn	545	-	-	-	-	-	-	634	634	634	634	634	634	634

1. The production stopped in the beginning of 2002.

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). PM_{10} and $PM_{2.5}$ are estimated from the distribution between TSP, PM_{10} 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 tonne 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, PM_{10} 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, PM_{10} 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 4.6.

Table 4.6 Time-series for emission of NMVOC from *Other production* (tonnes).

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Beer (2D)														
NMVOC	582	604	611	590	588	629	599	574	503	502	466	452	533	522

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 (SNAP 04) are presented in Table 4.7. The uncertainty estimates is based on standard uncertainty factors (EMEP/CORINAIR, 2004).

Table 4.7 Uncertainty estimates for industrial processes (%).

	Activity data uncertainty	Emission factor uncertainty	Overall 2002	Trend
SO_2	2	20	20,100	2,128
NO_X	2	50	50,040	1,688
NMVOC	2	50	50,040	2,979
NH_3	2	1000	1000,002	21,09
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 Sector 3)

5.1 Overview of the sector

Use of solvents and other organic compounds in industrial processes and households are important sources of evaporation of non-methane volatile hydrocarbons (NMVOC), and are related to the source categories Paint application (CRF sector 3A), Degreasing and dry cleaning (CRF sector 3B), Chemical products, manufacture and processing (CRF sector 3C) and Other (CRF sector 3D). In this section a new methodology for the Danish NMVOC emission inventory is presented and the results for the period 1995 – 2003 are summarised. The method is based on a chemical approach, and this implies that the SNAP category system is not applicable. Instead emissions will be related to specific chemicals, products, industrial sectors and households and to the CRF sectors mentioned before.

5.2 Paint application (CRF Sector 3A), Degreasing and dry cleaning (CRF Sector 3B), Chemical products, Manufacture and processing (CRF Sector 3C) and Other (CRF Sector 3D)

5.2.1 Source category description

Table 5.1 and Figure 5.1 show the emissions of chemicals from 1985 to 2003, where the used amounts of single chemicals have been assigned to specific products and CRF sectors. The methodological approach for finding emissions in the period 1995 - 2003 is described in the following section. A linear extrapolation is made for the period 1985 – 1995. A decrease is seen throughout the sectors. Table 5.2 shows the used amounts of chemicals for the same period. Table 5.1 is derived from Table 5.2 by applying emission factors relevant to individual chemicals and production or use activities. Table 5.3 showing the used amount of products is derived from Table 5.2, by assessing the amount of chemicals that is comprised within products belonging to each of the four source categories. As a first approach the conversion factors are very rough estimates, and more thorough investigations are needed in order to quantify the used amount of products more accurately.

In Table 5.4 the emission for 2003 is split into individual chemicals. Propane and butane are main contributors, which can be attributed to propellants in spraying cans. Turpentine is defined as a mixture of stoddard solvent and solvent naphtha, and it is these two chemicals that are considered in the inventory. For each chemical the emission factors are based on rough estimates from SFT (1994). High emission factors are assumed for use of chemicals (products) and lower factors for industrial production processes.

Table 5.1 Emission of chemicals in Gg pr year

Total emissions Gg pr year	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
Paint application (3A)	41,4	27,9	21,9	39,1	35,3	35,9	48,9	50,6	46,0	49,9	52,2	54,5	56,8	59,1	61,3	63,6	65,9	68,2	70,5
Degreasing and dry cleaning (3B)	8,50	8,77	9,65	10,8	9,73	10,1	10,9	11,6	10,8	11,8	12,1	12,5	12,8	13,1	13,4	13,8	14,1	14,4	14,7
Chemical products, manufacturing and processing (3C)	1,21	1,70	1,64	1,96	1,78	1,76	1,75	1,94	1,81	1,95	2,01	2,06	2,11	2,16	2,22	2,27	2,32	2,37	2,42
Other (3D)	16,1	11,8	10,2	18,2	16,6	16,7	24,3	22,9	21,0	24,2	25,5	26,9	28,2	29,5	30,8	32,2	33,5	34,8	36,2
Total NMVOC	**67,2**	**50,2**	**43,4**	**70,0**	**63,4**	**64,4**	**85,9**	**87,1**	**79,6**	87,9	91,9	95,9	99,9	104	108	112	116	120	124
Total CO_2[a]	209	157	135	218	198	201	268	271	248	274	286	299	311	324	336	349	361	373	386

[a] 0.85*3.67*total NMVOC

Table 5.2 Used amounts of chemicals in Gg pr year

Used amounts of chemical Gg pr year	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
Paint application (3A)	109	71,0	57,5	96,6	86,9	94,3	152	124	113	131	137	143	149	155	161	167	173	179	185
Degreasing and dry cleaning (3B)	47,5	50,2	48,6	52,9	51,2	51,2	58,8	56,9	56,4	58,7	59,9	61,2	62,4	63,6	64,9	66,1	67,3	68,6	69,8
Chemical products, manufacturing and processing (3C)	52,3	64,5	62,4	70,3	64,7	66,2	68,3	69,3	66,5	71,6	72,9	74,2	75,5	76,8	78,1	79,4	80,7	82,1	83,4
Other (3D)	90,0	79,3	74,7	91,2	87,4	80,0	106,4	93,3	90,8	96,2	97,9	99,5	101	103	104	106	108	109	111
Total NMVOC	299	265	243	311	290	292	385	344	327	357	367	378	388	398	408	419	429	439	449

Table 5.3 Used amounts of products in Gg pr year

Used amounts of products Gg pr year	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990	1989	1988	1987	1986	1985
Paint application (3A)	725	474	383	644	579	629	1013	828	753	871	911	952	992	1032	1073	1113	1153	1194	1234
Degreasing and dry cleaning (3B)	95,1	100	97,2	106	102	102	118	114	113	118	120	123	125	127	130	132	135	137	140
Chemical products, manufacturing and processing (3C)	261	323	312	352	323	331	341	346	332	358	365	371	378	384	391	398	404	411	417
Other (3D)	450	396	374	456	437	400	532	466	454	481	489	497	505	513	521	530	538	546	554
Total products	1531	1293	1166	1557	1442	1462	2004	1755	1652	1827	1885	1942	2000	2057	2115	2172	2230	2287	2345

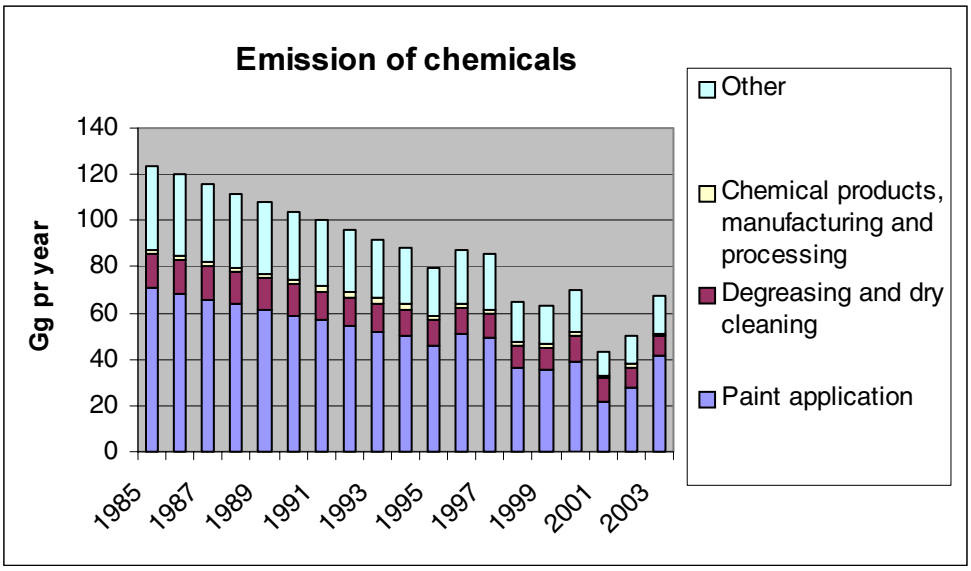

Figure 5.1 Emissions of chemicals in Gg pr year. The methodological approach for finding emissions in the period 1995 – 2003 is described in the text, and a linear extrapolation is made for 1985 – 1995. Figures can be seen in Table 5.1

Table 5.4 Chemicals with highest emissions 2003

Chemical	Emissions 2003 (1000 tonnes)	Emissions-factors (estimated from SFT, 1994) (%)	
		Consumption	Production processes
Propane	30,8	45	5
Butane	15,3	45	5
Turpentine	5,93	45	5
Aminooxygengroups	2,83	50	5
Methanol	1,99	5	1
Glycerol	1,64	10	5
Acetone	1,52	90	5
Etheralkoholes	1,47	60	5
Ethanol	0,910	7,5	1
Formaldehyde	0,788	5	1
Phenol	0,650	25	5
Naphthalene	0,563	5	1
Ethandiol	0,530	25	5
Monobutylether	0,301	95	5
Cyanates	0,268	50	5
Propylalcohol	0,246	10	5
Tetrachlorethylene	0,236	80	5
1-butanole	0,224	25	5
Propylenglycol	0,215	10	1
Xylene	0,194	5	1
Butanone	0,160	80	5
Toluendiisocyanate	0,153	5	1
Toluen	0,072	5	1
Dioctylphthalate	0,067	5	1
Acyclic monoamines	0,040	50	5
Butanoles	0,036	25	5
Methylbromide	0,032	80	5
Diethylenglycol	0,014	25	5
Triethylamine	0,011	50	5
Diamines	0,002	80	5

5.2.2 Methodological issues

The emissions of Non-Methane Volatile Organic Carbon (NMVOC) from industrial use and production processes and household use in Denmark have 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 printworks in an analogue printworks, 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

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

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

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 5.2.

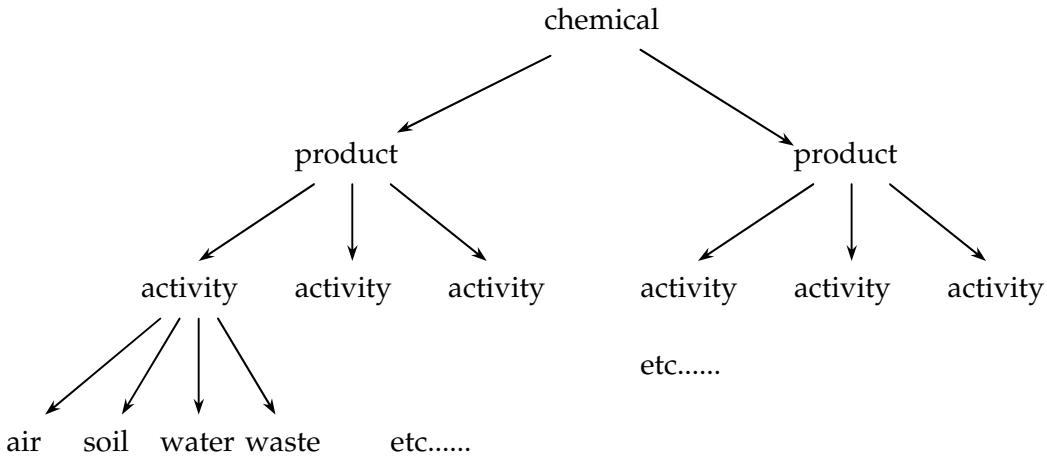

Figure 5.2 Methodological flow in a chemical based emission inventory.

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 is 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, CO_2, CH_4, 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", cf. Annex 3.F, 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. It is important to be aware that some chemicals are comprised in products and will not be found as separate chemicals, e.g. di-ethylhexyl –phthalate (DEHP), which is the predominant softener in PVC. In order to include these chemicals the product use must be found and the amount of chemicals in the product must be estimated. It is important to distinguish the amount of chemicals that enters the mass balance as pure chemical and the amount that is associated to a product, in order not to overestimate the use.

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 44 different NMVOCs comprise over 95 % of the total use, and it is these 44 chemicals that are investigated further.

In the Nordic SPIN database (Substances in Preparations in Nordic Countries) information for industrial use categories and products specified for individual chemicals, according to the NACE coding system is available. The *use* amounts of individual chemicals are distributed to specific products and activities. The product amounts are then distributed to the CRF sectors 3A – 3D.

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. Emission factors can be related to production processes and to use. In production processes the emissions of solvents typically are low and in use it is often the case that the entire fraction of chemical in the product will be emitted to the atmosphere. Each chemical will therefore be associated with two emission factors, one for production processes and one for use.

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.

5.2.3 Uncertainties and time-series consistency

Important uncertainty issues related to the new approach are

(i) Identification of chemicals that qualify as NMVOCs. The definition is vague, and no approved list of agreed NMVOCs is available. Although a tentative list of 650 chemicals from the "National Atmospheric Emission Inventory" has been used, it is possible that relevant chemicals are not included.

(ii) Collection of data for quantifying production, import and export of single chemicals and products where the chemicals are comprised. For some chemicals no data are available in

Statistics Denmark. This can be due to confidentiality or that the amount of chemicals must be derived from products wherein they are comprised. For other chemicals the amount is the sum of the single chemicals *and* product(s) where they are included. The data available in Statistics Denmark is obtained from Danish Customs & Tax Authorities and they have not been verified in this assessment.

(iii) Distribution of chemicals on products, activities, sectors and households. The present approach is based on amounts of single chemicals. To differentiate the amounts into industrial sectors it is necessary to identify and quantify the associated products and activities and assign these to the industrial sectors and households. No direct link is available between the amounts of chemicals and products or activities. From the Nordic SPIN database it is possible to make a relative quantification of products and activities used in industry, and combined with estimates and expert judgement these products and activities are differentiated into sectors. The contribution from households is also based on estimates. If the household contribution is set too low, the emission from industrial sectors will be too high and vice versa. This is due to the fact that the total amount of chemical is constant. A change in distribution of chemicals between industrial sectors and households will, however, affect the total emissions, as different emission factors are applied in industry and households, respectively.

A number of activities are assigned as "other", i.e. activities that can not be related to the comprised source categories. This assignment is based on expert judgement but it is possible that the assigned amount of chemicals may more correctly be included in other sectors. More detailed information from the industrial sectors is required.

(iv) In this first version of the NMVOC emission inventory rough estimates and assumed emission factors are used. These are defined for the individual chemicals, where a more appropriate approach, in some cases, could be to define emission factors for sector specific activities.

A quantitative measure of the uncertainty has not been assessed within this first inventory. Single values have been used for emission factors and activity distribution ratios etc., and to be able to perform a stochastic evaluation more information is needed.

5.2.4 Source-specific QA/QC and verification

A general QA/QC procedure is currently being developed, and no source specific QA/QC and verification has been made.

5.2.5 Source-specific recalculations

The previous method was based on results from an agreement between the Danish Industry and the Danish Environmental Protection Agency (EPA). The emissions from various industries were reported to the Danish EPA. The reporting was not annual and linear interpolation was used between the reporting years. It is important to notice that not all use of solvents was included in this agreement and no activity data were available.

It is not possible to perform direct comparison of methodologies or to make corrections to the previous method, due to the fundamental differences in structure. But an increase in total emissions was expected due to the more comprehensive list of chemicals.

5.2.6 Source-specific planned improvements

The issues stated in the uncertainty section must be addressed in the future. The new approach is based on chemicals and as such, no chemical use is overlooked. Emphasis in the forthcoming improvements will be on gathering more detailed information from specific

industrial sectors with respects to used products and chemicals and on their estimates of emission factors related to activities. It is, however, important to keep the detail of information on a realistic scale, since more information introduces more sources of uncertainty. It is not given that a more detailed information system yields a more precise result, if the available data is uncertain.

References

Statistics Denmark, http://www.dst.dk/HomeUK.aspx

SPIN on the Internet. Substances in Preparations in Nordic Countries, http://www.spin2000.net/spin.html

Emission Inventory Guidebook 3rd edition, prepared by the UNECE/EMEP Task Force on Emissions Inventories and Projections, 2002 update. Available on the Internet at http://reports.eea.eu.int/EMEPCORINAIR3/en (07-11-2003)

Solvent Balance for Norway, 1994. Statens Forurensningstilsyn, rapport 95:02

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 6.1 shows the distribution of sources of NH_3 emission from the agricultural sector 2003. The main part of the emission is related to manure management, corresponding to 78%. Emissions from use of synthetic fertiliser and crops contribute with 6% and 15% respectively. Emissions from ammonia treated straw and sewage sludge used as fertiliser amount to less than 1%.

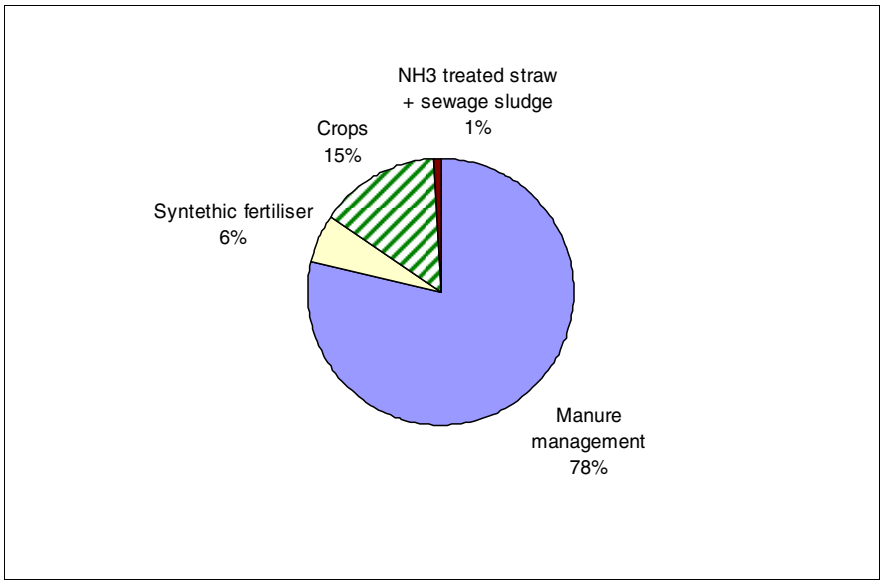

Figure 6.1 Ammonia emissions from the agricultural sector (2003)

From 1985 to 2003 the emission of ammonia has decreased from 138.41 Gg NH_3 to 94.69 Gg NH_3 which corresponds to a 32% reduction (Figure 6.2). 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, requirements to storing and application of husbandry manure, 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 main part of the emission from the agricultural sector is related to the livestock production and hence the management of manure. The result of an active environmental policy is a decrease in the N-excretion and the NH_3 emission per produced animal, which has reduced the overall emission of ammonia.

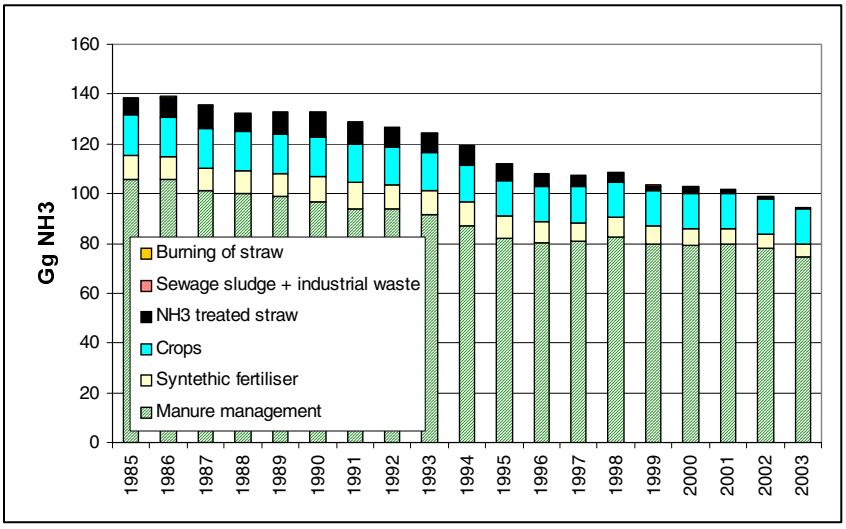

Figure 6.2 Ammonia emissions from the agricultural sector 1985 to 2003

6.1.2 Particulate matter

In NRF the emission of particulate matter (PM) is registered for the years 2000 to 2003. The emission from the agricultural sector includes emission of dust from cattle, pigs and poultry stables. The emission contributes with 39% of the national PM emission in 2003.

Using the same calculation method for previous years, it is seen that the total emission of particles given in TSP has increased with 21% from 1985 to 2003 (Figure 6.3). The same emission factor is used for all years, which means that the development is alone depending on the livestock production. The increased emission is due to a growth in the production of slaughtering swine.

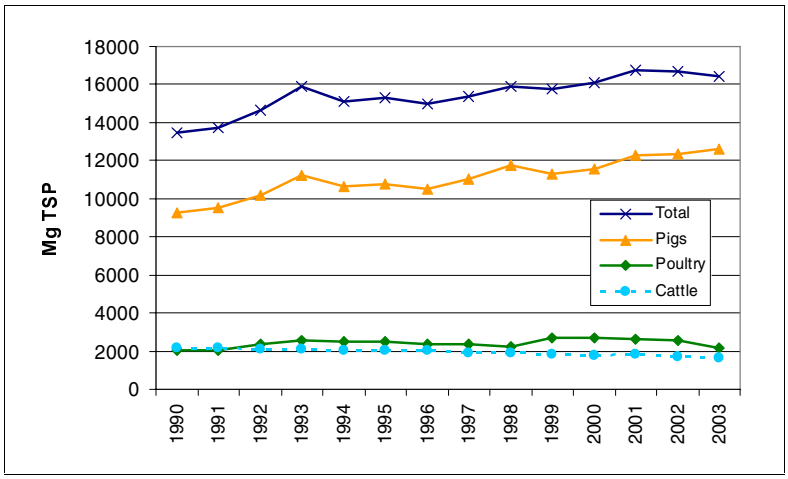

Figure 6.3 Emission of particulate matter (TSP) from the agricultural sector 1985 to 2003

6.1.3 References – sources of information

Data on activity and emissions are collected, evaluated and discussed in co-operation with 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 are evaluated continuously according to the latest knowledge and information. Table 6.1 shows the source of data input from different institutes.

Table 6.1 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	-livestock production -milk yield -slaughtering data -land use
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 Centre (http://www.lr.dk)	DAAC	-stable type -grazing situation -manure application time and methods
Danish Environmental Protection Agency (http://www.mst.dk)	EPA	-sewage sludge 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*.

$$E_{total} = \sum a_i \bullet IEF_i$$

The emissions from the agricultural sector are calculated in a comprehensive agricultural model complex called DIEMA (Danish Integrated Emission Model for Agriculture). This model as shown in Figure 6.4 is implemented in great detail and it is used to cover both emissions of ammonia, particular matter and greenhouse gases (N_2O and CH_4). Thus, there is a direct coherence between the ammonia emission and the emission of N_2O. A more detailed description is published, but only in Danish (Mikkelsen et al. 2005). It is planned to publish an English edition.

This year the National Environmental Research Institute (NERI), which are responsible for the emission inventory, has established data agreements with the institutes and organisations to assure that the necessary data is available to work out the emission inventory in time. The main part of the emission is related to the livestock production and many of the data is based on Danish standards. The Danish Institute of Agricultural Sciences (DIAS) deliver Danish standards related to feeding consumption, manure type in different stable

types, nitrogen content in manure etc. Previously the standards were updated and published every third or fourth year – the last one is Poulsen et al. from 2001. From year 2001 NERI receives updated data annually directly from DIAS in the form of spreadsheets. These standards have been described and published in English in Poulsen & Kristensen (1998).

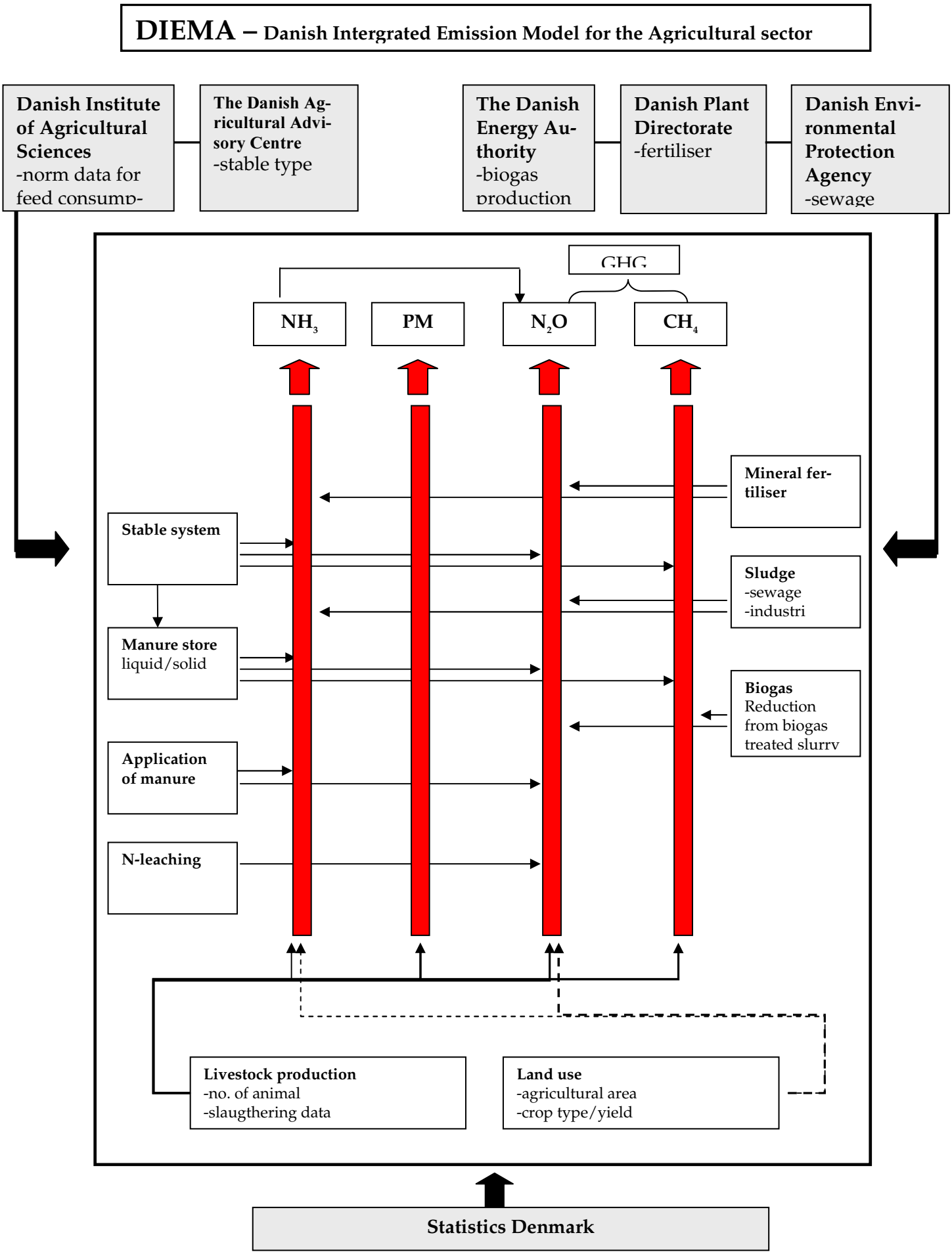

Figure 6.4 DIEMA – Danish Integrated Emission Model for Agriculture

DIEMA includes about 30 different livestock categories depending on livestock category, weight class and age. Each of these subcategories are subdivided according to stable type and manure type, which result in about 100 different combinations of subcategories and stable type (Table 6.2). The emission is calculated from each of these subcategories and then aggregated in accordance with the livestock categories given in the NFR. It is important to point out, that changes in the emission and the implied emission factor over the years are not only a result of changes in number of animal, but also depending on changes in the allocation of subcategories, changes in feed consumption, changes in stable type and change in handling of husbandry manure in relation to storage and application.

Table 6.2 Livestock categories and subcategories.

NFR 4B	Animal categories	Includes	No. of subcategories in DIEMA (animal type/stable system)
4B 1a	Dairy Cattle[1]	Dairy Cattle (heavy breeding and Jersey)	9
4B 1b	Non-dairy Cattle[1]	Calves, heifers, bulls, suckling cattle (heavy breeding and Jersey)	26
4B 3	Sheep	including lamb	1
4B 4	Goats	Including kids	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	4
		Sewage sludge	-

[1]For all subcategories distinguish between large breed and the smaller jersey cattle

6.2 NH_3 emission from Manure Management – NRF 4.B

6.2.1 Description

The NH_3 emission from manure management (NRF category 4.B) 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 6.5 is shown the emission from manure management distributed on different livestock categories in 2003. The main part of the emission is related to the cattle- and swine production, corresponding to 86%.

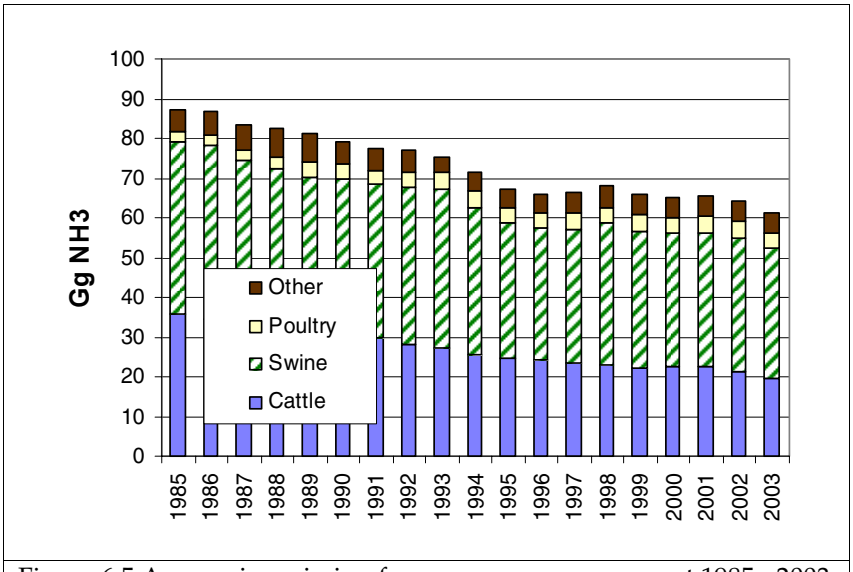

Figure 6.5 Ammonia emission from manure management 1985 - 2003

6.2.2 Methodological issues

6.2.2.1 Activity data

In Table 6.3 is shown the development in the livestock production 1990 – 2003 based on the Agricultural Statistic (Statistics Denmark). The emission from pigs and poultry is based on slaughter data from the Agricultural Statistics. Only farms larger than 5 hectares are included in the annual census. An approximate number of horses, goats and sheep on small farms 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 to 42,700 horses in 2003. The total number of horses in 2003 is approximately 154,500, including horses placed on small farms and riding schools.

Since 1990 the production of swine and poultry has increased. Contrary to the production of cattle, that has decreased as a result of a rising milk yield. Buffalo, camels and llamas, mules and donkeys do not occur in Denmark.

Table 6.3 Livestock production 1990 - 2003 (NRF category 4B)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
								1000 head							
NRF	Animal category														
4B 1a	Dairy Cattle	753	742	712	714	700	702	701	670	669	640	636	623	610	596
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	1 128
4B 3	Sheep*	92	107	102	88	80	81	94	78	83	83	81	92	74	83
4B 4	Goats*	8	9	9	9	9	9	9	10	10	10	10	11	11	12
4B 6	Horses*	135	137	138	140	141	143	144	146	147	149	150	152	153	155
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	12 949
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	17 796
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	2 361

* Includes animals on small farms (less than 5 ha), which are not included in the Statistic Denmark.

6.2.2.2 Implied emission factor

Table 6.4 is shown the implied emission factor for each NFR livestock category from 1990 to 2003. The implied emission factor expresses the average emission of ammonia 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:

- change in the livestock production level or change in the share of different subcategories
- change in fodder condition and N-excretion
- change in stable type
- change in handling of manure in relation to storage and application

In Annex 2C1 more detailed information about N-excretion and stable type for each livestock category 1990 - 2003 used in the Danish emission inventory are given. Further, tables shows the Danish standards for emission factor used to calculate the ammonia emission in stable and in relation to storage and application of manure.

For all animal categories the implied emission factor has decreased from 1990 to 2003, which are the result of measures in relation to implementation of the Action plans on the Aquatic Environment and the Ammonia Action Plan. Increasing requirements to improve the utilisation of nitrogen in manure has result in reduction of the N-excretion and especially for slaughtering pigs. Changes in manure management in relation to spreading are another important factor, which has reduced the emission. Demands to minimum 9-month manure storage capacity, manure applied on soil has to be ploughed down within 6 hours, ban on

spreading the manure in winter and from 1. August 2003 broad spreading is no longer allowed.

Table 6.4 Implied emission factor from – manure management 1990 to 2003 (NRF category 4B)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
NFR	Animal category														
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	25.46
4b 1b	Non-dairy cattle	7.48	7.18	6.96	6.73	6.43	6.16	6.07	5.99	5.95	6.13	6.40	6.43	6.12	5.84
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	1.37
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	1.33
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	6.50
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	3.05
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	0.26
4B 13	Other animals (Fur farming)	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	1.96

6.2.3 Time-series

The emission of NH_3 from manure management is estimated to 71.78 Gg NH_3 in 2003 (table 6.5). From 1990 to 2003 the emission is reduced with 23%. As mention, 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 2003 the cattle production contributes with 30% of the total emission from manure management. The swine production contributes with a still increases share of the emission – in 2003 54% of the total emission from manure management. The production of slathering pigs has decreased by more than 35% compared to 1990. However, despite this development the emission from swine is decreasing. This is due to measures focused on the biological development and improvement in fodder efficiency.

Table 6.5 Emission of NH_3 from manure management 1990 - 2003

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
							Gg NH_3								
NFR	Animal category														
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	15.17
4b 1b	Non-dairy cattle	11.11	10.63	10.28	9.97	9.03	8.55	8.45	7.98	7.79	7.64	7.89	8.25	7.26	6.60
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	0.11
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	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	1.00
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	39.53
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	4.64
4B 13	Other	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	4.62
	a. Fur farming														
	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	0.08
	Total emission	93.54	91.18	90.87	88.84	84.09	78.93	77.45	77.87	79.76	77.19	76.54	76.82	75.43	71.78

In figure 6.6 is shown the percentage distribution of the NH_3 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 2003 the emission related to manure management in stable is increased from 37% to 48%. 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).

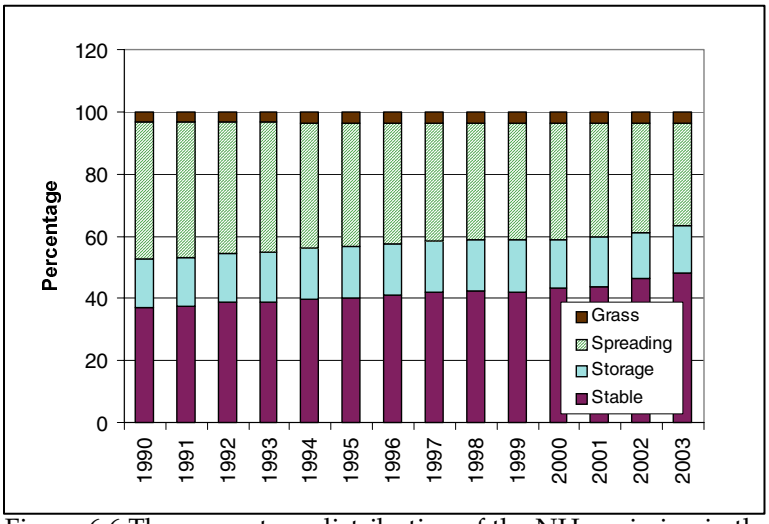

Figure 6.6 The percentage distribution of the NH_3 emission in the agricultural production 1990 - 2003

6.3 NH3 emission from Agricultural Soils – NRF 4.D

6.3.1 Description

Figure 6.7 shows the different emission sources from agricultural soils (NFR table 4.D). The majority of the ammonia emission from agricultural soils origins from crops, which in 2003 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.

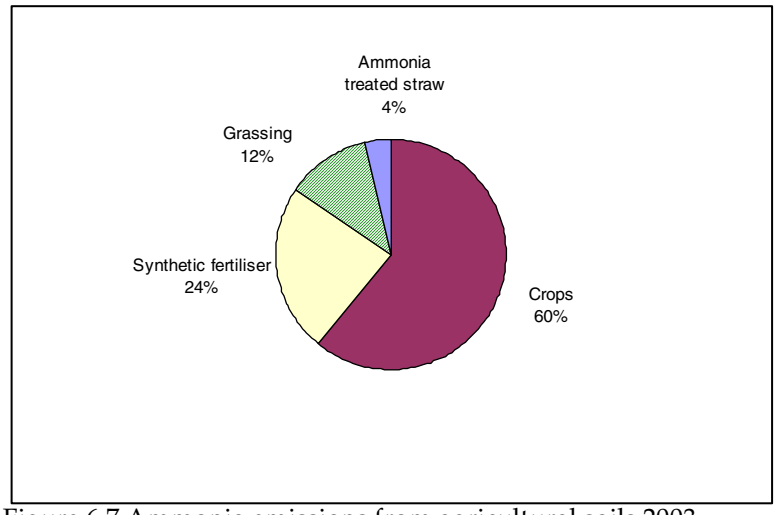

Figure 6.7 Ammonia emissions from agricultural soils 2003

6.3.2 Methodological issues

More detailed description covering the emission calculation of the different emission sources and information about activity data and emission factors used are given in Annex 2C2.

6.3.2.1 Activity data

At present the farmed area covers about 60% 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. Table 6.6 shows the activity data used in calculation of the ammonia emission from agricultural soils. Information of farmed area and cultivation of different crop type are collected by Statistics Denmark. The amount of nitrogen used in synthetic fertiliser is based on information from the Danish Plant Directorate. The use of fertiliser has decreased considerably – nearly half the consumption compared to 1990.

Table 6.6 Activity data used to estimate the NH_3 emission from agricultural soils 1990 - 2003

NFR 4.D	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
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	2 658
N in fertiliser	M kg N	400	395	370	333	326	316	291	288	283	263	251	234	211	201
N deposit on grass	M kg N	34	35	35	36	35	36	36	35	35	34	34	34	33	32
NH_3, straw	M kg N	13	11	10	10	10	8	6	6	5	3	3	2	1	1

6.3.2.2 Implied emission factor

The implied emission factor 1990 – 2003 in relation to the agricultural soils is given in Table 6.7.

The implied emission factor related to crops express the total emission divided by the total cultivated area and this emission factor is decreasing due to growth in the set-a-side area. The implied emission factor related to use of synthetic fertiliser depending on consumption and type of fertiliser and 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 6.7 Implied emission factor used to estimate the NH_3 emission from agricultural soils

NFR 4.D	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Source															
Crops	Kg NH_3 per hectare	5.7	5.7	5.7	5.7	55	5.2	5.3	5.4	5.4	5.3	5.3	5.2	5.3	5.3
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	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	7.0
NH_3, straw	% of total NH_3-N	65	65	65	65	65	65	65	65	65	65	65	65	65	65

6.3.3 Time-series

From 1990 to 2003 the ammonia emission from agricultural soils are decrease from 39.51 Gg NH_3 to 22.91 Gg NH_3, which correspond to a 42% reduction (Table 6.8). 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 NH_3 emission has been reduced essentially.

Table 6.8 Emission of NH_3 from Agricultural Soils from 1990 - 2003

NFR 4.D	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
						Gg NH_3								
Agricultural Soils														
Crops	15.83	15.72	15.64	15.48	14.80	14.18	14.27	14.47	14.41	14.00	13.93	14.04	14.01	13.96
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	5.64	5.40
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	2.82	2.75
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	0.80
Emission, total	39.51	37.64	35.90	35.34	35.47	33.12	30.48	29.44	28.65	26.00	26.08	24.85	23.41	22.91

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 Seedorf. 1999) since the particles are able to carry bacteria, viruses and other organic compounds.

In 2003 the PM emission from stables given in TSP is estimated to 16412 Mg. Of this 77% is related to the production of swine. The emission from poultry and cattle contribute with 13% and 10%, respectively.

Present, only the emission from 2000 to 2003 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 livestock production is based on Statistics Denmark, Agricultural Statistic (www.dst.dk) – Table 6.9.

Table 6.9 Livestock production 1990 – 2003 (NRF)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
							1000 head								
NRF	Animal category														
4B 1a	Dairy cattle	753	742	712	714	700	702	701	670	669	640	636	623	610	596
4B 1b	Non-dairy cattle[1]	1486	1480	1478	1481	1405	1388	1393	1334	1308	1247	1232	1284	1187	1128
4B 8	Pigs[2]	9497	9783	10455	11568	10923	11084	10842	11383	12095	11626	11922	12608	12732	12949
4B 9	Poultry														
	Hens + Broilers[3]	15498	15086	18259	18916	18954	18673	19224	18156	18023	19968	20982	20347	19734	17152
	Other poultry[4]	750	846	782	982	897	946	663	838	651	1042	849	889	846	644

[1] Non-dairy includes heifer, bulls, calves and suckling cattle.
[2] Includes sows and fattening pigs (piglets and slaughtering pigs)
[3] Includes Laying hens, chicken for breeding and cocks.
[4] Includes turkey, ducks and geese.

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 (Table 6.10). 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 PM_{10} – 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 PM_{10} 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 6.10 Emission factor – PM emission (NRF)

PM Emission from stables	Emission factor		
	TSP	PM_{10}	$PM_{2.5}$
		g/head/ year	
Animal category			
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 6.11 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 6.11 PM emission 1990 – 2003 (NRF)

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
							Mg TSP								
NRF	Category														
4B 1a	Dairy	726	715	686	688	674	677	675	646	645	617	612	601	587	574
4B 1b	Non-dairy	1432	1426	1424	1427	1354	1337	1342	1285	1261	1202	1188	1237	1143	1087
4B 8	Pigs	9235	9513	10167	11249	10621	10778	10542	11069	11761	11305	11593	12260	12381	12592
4B 9	Poultry	2044	2054	2352	2531	2488	2486	2387	2372	2254	2675	2675	2630	2542	2159
	PM, total	13437	13707	14629	15895	15138	15278	14947	15372	15921	15799	16067	16727	16653	16412

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 and the emission from theses 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 6.12 shows the estimated uncertainties for ammonia sources based. The figures are primarily based on expert judgement by Danish Institute of Agricultural Sciences. The uncertainties for the number of animals and hectares grown with different crops are very small. The Danish Normative System for animal excretions is based on data from the Danish Agricultural Advisory Centre (DAAC), which are the central office for all Danish agricultural advisory services.

DAAC is doing a lot of research as well as collecting efficacy reports from the Danish farmers for dairy production, meat production, pig production etc. to optimise the productivity in Danish agriculture. In total feeding plans from 15-18% of the Danish dairy production, 25-30% of the pig production, 80-90% of the poultry production and approximately 100% of the fur production are collected annually. These basic feeding plans are used to develop the Danish Normative System.

The Normative System has been updated annually from 2000. For dairy cows approximately 800 feeding plans are used to develop the normative figures. The normative figures (Poulsen et al. 2001) are the arithmetic mean. Based on the feeding plans the standard deviation in N-excretion rates between farms can be estimated to ±20% for all animal types (Hanne D. Poulsen, DIAS, pers. comm). However, due to the high number of farms included in the norm figures the arithmetic mean, it can be assumed as a very good estimate with a low uncertainty. All cattle, sheep and goats have their own ID-number (ear tags) and hence the uncertainty in these numbers is almost absent. Statistics Denmark has estimated the uncertainty in the number of pigs to less than 1%.

The combined effect of low uncertainty in actual animal numbers, feed consumption and excretion rates give a very low uncertainty in the activity data. The major uncertainty is therefore related to the emission factors.

Table 6.12 Estimated uncertainty associated with activities and emission factors for NH_3 and PM

Source	Emission Gg NH3	Activity data %	Emission factor %	Combined uncertainty %	Total uncertainty %	Uncertainty 95% Gg NH3
4 Agriculture – NH_3 total	94.69				10.6	10.0
4B NH_3 Manure Management	71.78	3.1	12.5	12.9	12.9	9.3
Stable	36.03	5	20	20.6		
Storage	11.11	5	20	20.6		
Spreading	24.56	5	20	20.6		
Sewage sludge	0.08	2	20	20.1		
4.D Agricultural Soils	22.91	1.0	16.5	16.6	16.6	3.8
Grazing animal	2.75	5	20	20.6		
Synthetic fertiliser	5.40	1	25	25.0		
Crops	13.96	1	25	25.0		
Ammonia treated straw	0.80	10	25	26.9		

Source	Emission Mg TSP	Activity data %	Emission factor %	Combined uncertainty %	Total uncertainty %	Uncertainty 95% Mg TSP
4 Agriculture – PM total	16412	2	500	500	500	82062

6.6 Quality assurance and quality control (QA/QC)

A QA/QC and verification plan for the agricultural sector is still under development, but some measures have been formulated as general lines for the further work. The objectives for the quality planning, as given in the CLRTAP Emission Inventory Guidebook, which are closely related to the IPCC Good Practice Guidance, are to improve the transparency, consistency, comparability, completeness and confidence. For the agricultural sector this work will be followed up by a more specific description for a QC and QA procedure.

This year, in co-operation with the Danish Institute of Agricultural Science, a detailed description of the methodology used to calculate the emission of both the ammonia and greenhouse gases has been published (Mikkelsen et al. 2005). Presently, this report is only available in Danish, but will be translated into English. It is planned to review the report by external agricultural experts.

To ensure the consistency in the inventory certain time-series has been worked out for both the activity data and emission factor 1985 - 2003. 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. As a consequence both the data and methods are evaluated continuously according to the latest knowledge and information.

6.7 Recalculations

Compared to the previous emission inventory (submission 2002) few changes are made. These changes increase the total ammonia emission from the agricultural sector with less than 1% (Table 6.13). The change is due to updating a data for stable type and emission form crops.

There have been no corrections of the PM emission compared to previous emission inventory.

Table 6.13 Changes in NH_3 emission in the agricultural sector compared to NRF reported last year

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
							Gg NH_3						
NH_3 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	98.30
Updated	133.06	128.82	126.77	124.18	119.56	112.05	107.93	107.31	108.41	103.19	102.62	101.68	98.83
Difference	0.03	0.04	0.04	1.13	0.83	0.09	0.11	0.14	0.24	0.34	0.37	0.41	0.54

6.8 Planned improvements

Present, the NH_3 emission from sewage sludge 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.D Agricultural Soils. The sewage sludge is applied on fields and therefore more related to this category.

In recent year there has been focus on reduction of ammonia emission and especially the possibilities to reduction in stables. A number of investigations to estimate the effects from these technical measures on the emission have been initiated. Still a very few stables have implemented ammonia reduction technology, but these will probably be an important issue in future. When data is available it is planned to implement the reduction effect in the emission inventory.

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

In relation to estimation of PM emission, it is planned to investigate the possibilities 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 and Louhekainen et al., 1987b). It shows that the particle emission from this source can be considerably and therefore can be important to apply in the emission inventory.

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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 extend 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.

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. This year a methodology for disaggregation of the fuel consumption and emission have been implemented for the Climate Convention inventory and the same methodology will be applied for the LRTAP Convention inventory in 2006.

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 inclusion 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 1990-2003 fuel consumption rates from the two approaches are within 1,5% 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 an update of fuel rates according to the latest energy statistics. The update included the years 1980-2002.

Further the PM emission factors for residential plants have been changed considerably as a result of a Nordic project focussing on these factors. The applied emission factors are much higher than in the former inventories.

Some additional improvement causing only very limited changes of the estimated total emission from stationary combustion are discussed in section 3.2.5.

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

- Road transport: 1990-1991 POP emission factors have been updated in order to correct errors in the inventories for these years
- Railways: An update of NO_X, NMVOC, CH_4, CO and PM factors for diesel in 2002. Previously, 2001 factors were used.
- Civil aviation: Several new turboprops are included in the list of representative aircraft. The change affects also the fuel use split between domestic and international aviation.
- Navigation: For 2002 the diesel fuel use has been updated according to the official Danish energy statistics from DEA.

Further details in section 3.1.5

Fugitive emissions
Emissions from offshore activities have been updated using the methodology described in the Emission Inventory Guidebook 3rd edition. The sources include emissions from extraction of oil and gas, on-shore oil tanks, on-shore and offshore loading of ships. The emission factors are based on the figures given in the Guidebook except for the on-shore oil tanks where national values are used.

7.2 Industry

NH_3 emissions from treatment of slaughterhouse waste is now included in the inventory.

7.3 Solvents

A new approach for calculating the emissions of Non-Methane Volatile Organic Carbon (NMVOC) from industrial and household use in Denmark is introduced. It focuses on single chemicals rather than activities. 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.

7.4 Agriculture

Few changes are made for the ammonia emission 1985 – 2002, but influence the total emission with less than 1% (refer to section 6.7). There are no changes in the emission of particular matter.

The National Environmental Research Institute (NERI), which are responsible for the emission inventory, has established data agreements with the institutes and organisations to assure that the necessary data is available to work out the emission inventory in time. The

main part of the emission is related to the livestock production and many of the data is based on Danish standards, which necessarily request for better documentation.

This year, in co-operation with the Danish Institute of Agricultural Science, a detailed description of the methodology used to calculate the emission of both the ammonia and greenhouse gases has been published (Mikkelsen et al. 2005). Presently, this report is only available in Danish.

Annex 1

Complete set of Nomenclature for Reporting Format (NRF) files

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1980 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NR	NR	NR	274,39	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		NR	NR	NR	3,90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	NR	NR	NR	78,31	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		NR	NR	NR	1,17	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		NR	NR	NR	1,64	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		NR	NR	NR	4,17	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		NR	NR	NR	1,06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		NR	NR	NR	4,44	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NR	NR	NR	1,76	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		NR	NR	NR	20,39	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		NR	NR	NR	34,36	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is notavailable. 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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		NR	NR	NR	12,47	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NR	NR	NR	2,56	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		NR	NR	NR	3,43	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NR	NR	NR	0,07	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NR	NR	NR	4,74	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		NR	NR	NR	0,88	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NR	NR	NR	0,41	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NR	NR	NR	0,34	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		0,00	0,00	0,00	450,51	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		NR	NR	NR	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NR	NR	NR	0,09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		NR	NR	NR	21,54	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NR	NR	NR	208,85	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		NR	NR	NR	9,40	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	NR	NR	NR	63,55	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		NR	NR	NR	1,10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		NR	NR	NR	1,54	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		NR	NR	NR	3,91	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		NR	NR	NR	1,28	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		NR	NR	NR	3,86	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NR	NR	NR	1,96	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		NR	NR	NR	17,36	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		NR	NR	NR	30,39	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		NR	NR	NR	13,15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NR	NR	NR	2,56	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		NR	NR	NR	3,12	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NR	NR	NR	0,16	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NR	NR	NR	4,69	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		NR	NR	NR	1,16	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NR	NR	NR	0,41	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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.

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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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NR	NR	NR	0,68	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		0,00	0,00	0,00	369,12	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		NR	NR	NR	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NR	NR	NR	0,09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		NR	NR	NR	25,43	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		NR	NR	NR	229,79	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		NR	NR	NR	9,09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	NR	NR	NR	57,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		NR	NR	NR	1,19	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		NR	NR	NR	1,72	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		NR	NR	NR	4,36	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		NR	NR	NR	1,40	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		NR	NR	NR	5,59	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NR	NR	NR	2,05	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		NR	NR	NR	16,48	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		NR	NR	NR	29,32	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		NR	NR	NR	7,37	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NR	NR	NR	2,56	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		NR	NR	NR	3,18	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NR	NR	NR	0,40	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NR	NR	NR	3,81	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		NR	NR	NR	1,17	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NR	NR	NR	0,41	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NR	NR	NR	0,85	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		0,00	0,00	0,00	377,76	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		NR	NR	NR	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NR	NR	NR	0,09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		NR	NR	NR	24,26	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

(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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HM should cover the timespan from 1990 to latest year.

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (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 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		NR	NR	NR	182,45	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		NR	NR	NR	10,93	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	NR	NR	NR	54,49	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		NR	NR	NR	1,30	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		NR	NR	NR	1,90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		NR	NR	NR	4,84	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		NR	NR	NR	1,25	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		NR	NR	NR	4,51	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NR	NR	NR	2,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		NR	NR	NR	13,99	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		NR	NR	NR	25,52	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is notavailable. 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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		NR	NR	NR	7,93	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NR	NR	NR	2,55	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		NR	NR	NR	3,27	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NR	NR	NR	0,22	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NR	NR	NR	2,66	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		NR	NR	NR	1,30	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NR	NR	NR	0,41	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NR	NR	NR	0,55	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		0,00	0,00	0,00	322,08	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		NR	NR	NR	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NR	NR	NR	0,09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		NR	NR	NR	21,11	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (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 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		NR	NR	NR	161,59	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		NR	NR	NR	10,37	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	NR	NR	NR	57,53	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		NR	NR	NR	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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 3 b i		1 A 3 b i R.T., Passenger cars		NR	NR	NR	1,55	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		NR	NR	NR	2,35	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		NR	NR	NR	5,99	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		NR	NR	NR	1,21	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		NR	NR	NR	3,51	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NR	NR	NR	1,63	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		NR	NR	NR	15,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		NR	NR	NR	23,95	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		NR	NR	NR	7,83	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		NR	NR	NR	2,55	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		NR	NR	NR	3,90	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		NR	NR	NR	0,42	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NR	NR	NR	3,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		NR	NR	NR	1,20	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NR	NR	NR	0,41	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		NR	NR	NR	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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 notavailable. 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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A	NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NR	NR	NR	0,84	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NR	NR	NR	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NR	NR	NR	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NR	NR	NR	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		0,00	0,00	0,00	304,86	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		NR	NR	NR	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		NR	NR	NR	0,09	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		NR	NR	NR	21,94	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)		NR	NR	NR		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		119,11	6,20	0,91	206,12	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,54	0,26	0,05	5,82	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		1,04	0,03	0,01	0,00	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	20,91	14,70	3,65	47,01	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		6,92	1,56	0,05	1,56		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,40	1,04	0,19	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,80	0,22	0,03	0,01		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		53,83	540,48	47,28	1,41	0,05	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		7,43	17,02	1,78	3,28	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		28,24	7,55	3,14	6,93	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,81	3,23	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	25,45	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		6,02	1,10	0,39	1,15	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		8,32	8,18	4,47	4,25	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		2,53	1,20	0,10	13,62	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		7,87	138,73	9,14	26,32	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		1,99	29,17	2,16	7,26	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		22,15	22,22	4,92	4,05	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		11,76	1,53	0,48	1,27		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		2,30	4,15	0,61	0,34	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	42,50	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	1,36	IE	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,31	2,16	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	4,20	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,03	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,70	0,14	0,05	1,01	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE		NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		0,63	NE	NE	NE	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	0,39	0,41	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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.

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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	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	Mg
3 A	(a)	3 A PAINT APPLICATION		NA	NA	70,48	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	14,74	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,42	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	36,17	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	27,25	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	13,30	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,08	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,17	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	52,85	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	3,18	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,94	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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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	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	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,97	NA	35,30	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		0,99	198,36	13,41	0,50	0,31	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		306,79	1096,75	261,02	334,48	138,48	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,57	0,43	0,09	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,10	0,68	0,18	0,04		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		36,14	3,07	0,97	20,68		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (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 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		130,52	6,94	0,98	188,94	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,70	0,28	0,06	6,41	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		1,30	0,03	0,01	0,00	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	21,10	14,91	3,65	31,05	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,96	1,79	0,07	1,79		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,38	1,04	0,18	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,75	0,20	0,03	0,01		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		54,51	517,51	46,53	0,93	0,05	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		8,64	18,88	1,99	2,34	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		31,16	8,30	3,47	4,59	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,05	9,30	2,96	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	25,92	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		6,06	1,10	0,40	0,70	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		9,54	8,33	4,52	5,52	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		2,20	1,04	0,19	6,72	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		7,62	140,18	9,32	15,55	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		2,01	29,66	2,17	6,13	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		22,15	22,22	4,92	2,43	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		13,19	1,71	0,54	1,39	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,99	3,07	0,49	0,21	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	40,78	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	1,67	IE	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,38	2,13	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	4,21	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,05	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,99	0,17	0,05	1,03	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE		NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		0,57	NE	NE	NE	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	0,39	0,21	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
3 A	(a)	3 A PAINT APPLICATION		NA	NA	68,19	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	14,41	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,37	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	34,84	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	26,55	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	12,43	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	53,51	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	3,30	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	5,58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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.

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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	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	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,93	NA	36,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		0,98	195,61	13,22	0,49	0,27	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		326,62	1073,67	257,57	278,58	139,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,61	0,48	0,10	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,52	0,73	0,19	0,04		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		42,06	3,58	1,13	24,63	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

(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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PM should cover the timespan from 2000 to latest year.

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1987 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		126,12	7,26	0,97	166,74	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,63	0,26	0,06	5,87	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		1,85	0,05	0,01	0,00	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	20,56	14,72	3,65	24,76	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,57	1,70	0,08	1,70		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,38	0,89	0,16	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,86	0,23	0,03	0,01		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		54,91	497,15	46,09	0,94	0,05	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		9,09	20,16	2,12	2,45	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		30,23	8,06	3,36	4,46	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,05	9,10	2,83	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	25,86	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		5,39	0,98	0,35	0,62	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		10,11	8,41	4,55	6,14	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		2,02	1,28	0,19	5,95	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		7,49	145,23	9,72	14,45	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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NFR sectors to be reported to CLRTAP			A = Allowable Aggregation	*Yearly minimum reporting*												*Additional reporting*					
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				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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		1,88	29,87	2,16	5,52	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		22,15	22,22	4,92	2,43	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		10,86	1,42	0,46	1,25	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,61	1,30	0,19	0,11	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	40,38	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	2,02	IE	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,45	3,21	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	4,21	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,07	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,46	0,12	0,05	1,04	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE		NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		0,64	NE	NE	NE	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	0,39	0,28	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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		NA	NA	65,91	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	14,09	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,32	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	33,51	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	25,17	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	11,64	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,11	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,14	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	51,06	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	3,39	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	5,98	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,89	NA	36,72	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		1,14	227,07	15,35	0,57	0,25	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		318,24	1088,48	255,44	248,50	135,56	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,62	0,51	0,11	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,95	0,78	0,21	0,05		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		61,84	5,26	1,65	39,74		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1988 (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 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		116,96	7,29	0,96	168,76	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,59	0,25	0,06	9,00	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		2,20	0,05	0,01	0,00	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	20,21	14,68	3,65	22,15	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		6,73	1,51	0,08	1,51		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,38	0,93	0,17	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,87	0,24	0,03	0,01		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		55,83	449,76	44,16	0,94	0,05	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		9,42	20,40	2,14	2,53	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		29,73	7,94	3,31	4,38	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,09	2,78	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	27,46	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		5,59	1,02	0,36	0,64	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		8,82	8,24	4,49	4,38	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,60	1,09	0,17	4,25	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		6,54	137,21	9,23	11,84	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

Note 1: Main Pollutants should cover the timespan from 1980 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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		1,68	30,05	2,17	4,73	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		22,15	22,22	4,92	2,43	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		12,31	1,61	0,51	0,95	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,98	3,13	0,48	0,03	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	30,99	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	2,14	IE	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,52	3,49	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	4,28	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,07	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,52	0,13	0,05	0,99	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE		NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		0,69	NE	NE	NE	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	0,39	0,40	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
3 A	(a)	3 A PAINT APPLICATION		NA	NA	63,62	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	13,76	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,27	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	32,18	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	24,29	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	11,11	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,14	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,12	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	49,93	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	3,81	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	7,03	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,91	NA	34,67	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		1,01	201,12	13,60	0,50	0,20	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		307,12	999,53	249,35	243,95	132,39	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,65	0,58	0,12	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,38	0,83	0,22	0,05		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		78,42	6,67	2,10	51,68		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1989 (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 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		95,52	7,27	0,91	135,14	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,70	0,27	0,06	7,07	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		2,28	0,06	0,01	0,00	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	20,12	14,77	3,64	15,01	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 d	(a)	1 A 2 d Pulp, Paper and Print		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 e	(a)	1 A 2 e Food Processing, Beverages and Tobacco		IE	IE	IE	IE	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 2 f	(a)	1 A 2 f Other (Please specify in a covering note)		7,95	1,79	0,10	1,79		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,38	0,92	0,16	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,82	0,22	0,03	0,01		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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 notavailable. 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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		55,25	421,13	42,48	0,68	0,05	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		9,79	20,44	2,15	1,79	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		30,78	8,20	3,42	3,02	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,05	8,91	2,68	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	27,54	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 c	(a)	1 A 3 c Railways		5,14	0,94	0,34	0,39	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d ii		1 A 3 d ii National Navigation		9,81	8,37	4,53	6,14	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,32	0,78	0,16	2,09	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b i		1 A 4 b i Residential plants		5,76	128,15	8,64	7,09	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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.

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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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 4 c i		1 A 4 c i Stationary		1,47	29,19	2,15	2,93	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
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	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1A 4 c iii		1A 4 c iii National Fishing		13,32	1,74	0,56	1,27	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,87	1,95	0,31	0,04	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	35,58	NA	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 1 c	(a)	1 B 1 c Other (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	2,44	IE	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,60	2,79	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	4,21	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,08	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,35	0,11	0,05	0,96	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 3	(a)	2 A 3 Limestone and Dolomite Use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 4	(a)	2 A 4 Soda Ash Production and use		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 6	(a)	2 A 6 Road Paving with Asphalt		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 A 7	(a)	2 A 7 Other including Non Fuel Mining & Construction (Please specify in a covering note)		NE	NE		NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 2	(a)	2 B 2 Nitric Acid Production		0,72	NE	NE	NE	0,01	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		NE	NE	0,39	0,47	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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		NA	NA	61,34	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	13,43	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,22	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	30,85	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	24,07	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	10,85	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	48,19	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,28	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	7,30	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A						NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,90	NA	36,71	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		1,45	289,57	19,57	0,72	0,29	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
		National Total		288,27	1053,18	249,29	191,04	133,03	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,72	0,67	0,14	0,01	0,00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,59	0,89	0,23	0,05		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
1 A 3 d i	(a)	International Navigation		80,27	6,83	2,15	52,28		NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5 E	(a)	5 E Other							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
X		X (11 08 Volcanoes)							NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1990 (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 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		90,96	7,95	1,00	126,17	NA	NR	NR	NR	11,96	0,57	2,50	0,95	4,63	2,90	7,54	2,94	14,80
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,62	0,25	0,06	3,41	NA	NR	NR	NR	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		2,38	0,06	0,01	0,00	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	18,98	14,82	3,64	15,26	0,00	NR	NR	NR	0,70	0,27	0,13	0,27	0,59	0,66	10,68	0,21	1,19
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NR	NR	NR	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)		0,37	0,90	0,16	0,00	0,00	NR	NR	NR	1,53	0,00	NE	NE	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)		0,75	0,20	0,03	0,01		NR	NR	NR		0,00			0,00	0,09	0,00	0,00	0,05
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		57,33	427,99	43,69	0,69	0,11	NR	NR	NR	93,85	0,02	NE	NE	0,08	2,67	0,11	0,02	1,57
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,43	21,69	2,28	1,91	0,01	NR	NR	NR	4,20	0,01	NE	NE	0,03	0,95	0,04	0,01	0,56
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		32,30	8,67	3,61	3,17	0,01	NR	NR	NR	0,07	0,01	NE	NE	0,04	1,35	0,06	0,01	0,79
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,39	2,76	0,00	0,00	NR	NR	NR	0,91	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	28,43	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		4,91	0,90	0,32	0,38	0,00	NR	NR	NR	0,00	0,00			0,00	0,16	0,01	0,00	0,09
1 A 3 d ii		1 A 3 d ii National Navigation		9,38	8,31	4,52	5,53	0,00	NR	NR	NR	0,57	0,00	0,00	0,05	0,02	0,08	2,62	0,05	0,13
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,40	0,89	0,19	1,88	NA	NR	NR	NR	0,71	0,05	0,14	0,04	0,22	0,14	0,87	0,07	0,91
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,26	128,54	8,66	6,41	NA	NR	NR	NR	0,17	0,08	0,15	0,06	0,06	0,13	0,18	0,22	1,82
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,61	4,42	0,00	0,00	NR	NR	NR	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,40	29,86	2,14	3,20	NO	NR	NR	NR	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	NR	NR	NR	0,85	0,00	NE		0,02	0,71	0,03	0,00	0,42
1A 4 c iii		1A 4 c iii National Fishing		13,87	1,81	0,58	1,36	0,00	NR	NR	NR	0,02	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,49	0,42	0,06	0,02	0,00	NR	NR	NR	0,06	0,00			0,00	0,06	0,00	0,00	0,04
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	34,76	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	2,65	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,67	3,34	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	4,43	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	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	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,31	0,11	0,05	0,94	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,02	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,81	NE	NE	NE	0,01	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	3,03	0,04	0,25	NE			0,04	0,76	NE	12,04
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,58	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO

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HM should cover the timespan from 1990 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	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		NA	NA	59,05	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	13,11	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,16	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	29,52	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	24,08	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	11,11	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,17	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,07	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	47,40	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,31	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	5,39	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,90	NA	39,51	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NE	NE	NE		NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
		National Total		282,88	771,82	229,17	177,17	133,23	0,00	0,00	0,00	122,43	1,14	3,34		1,50	6,33	10,25	25,24	4,47	35,46
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,72	0,59	0,12	0,01	0,00	NR	NR	NR	0,49	0,00				0,00	0,08	0,00	0,00	0,05
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,29	0,85	0,22	0,05		NR	NR	NR		0,01				0,03	0,85	0,04	0,01	0,50
1 A 3 d i	(a)	International Navigation		84,42	7,18	2,26	54,30		NR	NR	NR	0,17	0,02	0,03		0,36	0,15	0,36	20,96	0,33	0,76
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1991 (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 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		132,29	8,91	1,23	184,11	NA	NR	NR	NR	12,10	0,58	2,69	1,24	5,18	3,22	8,48	4,03	15,74
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,80	0,28	0,06	2,64	NA	NR	NR	NR	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		2,43	0,06	0,01	0,00	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	19,21	14,68	3,66	15,90	0,00	NR	NR	NR	0,67	0,28	0,14	0,29	0,63	0,68	11,47	0,23	1,19
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR			NE	NE	NE		NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		7,99	1,80	0,10	1,87	0,00	NR	NR	NR	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	0,83	0,15	0,00	0,00	NR	NR	NR	1,42	0,00	NE	NE	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)		0,61	0,16	0,02	0,00		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		57,84	443,23	44,78	0,71	0,28	NR	NR	NR	72,93	0,02	NE	NE	0,08	2,84	0,12	0,02	1,67
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,83	23,00	2,42	1,97	0,01	NR	NR	NR	3,20	0,01	NE	NE	0,03	0,98	0,04	0,01	0,57
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		32,78	8,79	3,67	3,22	0,01	NR	NR	NR	0,05	0,01	NE	NE	0,04	1,37	0,06	0,01	0,81
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,06	9,81	2,87	0,00	0,00	NR	NR	NR	0,70	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	27,69	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		4,99	0,91	0,33	0,38	0,00	NR	NR	NR	0,00	0,00			0,00	0,16	0,01	0,00	0,10
1 A 3 d ii		1 A 3 d ii National Navigation		11,19	9,73	5,28	6,70	0,00	NR	NR	NR	0,50	0,00	0,01	0,06	0,03	0,10	3,17	0,06	0,16
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,33	0,90	0,19	1,67	NA	NR	NR	NR	0,69	0,04	0,14	0,03	0,21	0,14	0,74	0,06	0,91
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,66	142,85	9,56	7,09	NA	NR	NR	NR	0,19	0,09	0,17	0,07	0,06	0,14	0,18	0,24	2,07
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,31	4,40	0,00	0,00	NR	NR	NR	1,27	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,52	29,68	2,15	3,37	NO	NR	NR	NR	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	NR	NR	NR	0,62	0,00	NE		0,02	0,71	0,03	0,00	0,42
1A 4 c iii		1A 4 c iii National Fishing		14,05	1,83	0,59	1,14	0,00	NR	NR	NR	0,02	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,86	0,98	0,20	0,16	0,00	NR	NR	NR	0,08	0,00			0,00	0,15	0,01	0,00	0,09
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	43,43	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	3,27	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,94	2,71	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	3,63	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	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	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,65	0,22	0,06	0,93	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,74	NE	NE	NE	0,02	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	0,15	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR				NE				NE	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,60	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	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 notavailable. 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		NA	NA	56,77	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	12,78	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,11	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	28,18	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR										
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE		IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	22,97	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	10,63	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,20	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,05	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	47,05	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,32	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,94	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO

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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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,89	NA	37,64	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
		National Total		332,39	814,47	227,73	236,34	129,18	0,00	0,00	0,00	95,65	1,15	3,33	1,83	7,21	10,96	27,22	5,08	24,29
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,69	0,56	0,11	0,00	0,00	NR	NR	NR	0,47	0,00			0,00	0,08	0,00	0,00	0,05
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,90	0,80	0,20	0,05		NR	NR	NR		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		NR	NR	NR	0,14	0,02	0,03	0,30	0,13	0,30	17,24	0,29	0,66
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1992 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		91,29	8,22	1,23	136,59	NA	NR	NR	NR	11,01	0,55	2,52	1,06	4,57	2,88	7,89	3,37	14,91
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,09	0,33	0,07	3,31	NA	NR	NR	NR	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		2,79	0,07	0,02	0,00	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	18,45	14,43	3,62	14,16	0,00	NR	NR	NR	0,63	0,28	0,13	0,27	0,61	0,66	11,22	0,22	1,15
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR			NE	NE	NE		NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		8,86	1,99	0,11	2,06	0,00	NR	NR	NR	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	0,80	0,14	0,00	0,00	NR	NR	NR	1,38	0,00	NE	NE	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		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		58,61	434,50	43,89	0,53	0,46	NR	NR	NR	66,03	0,02	NE	NE	0,09	2,99	0,12	0,02	1,76
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,68	23,18	2,42	1,25	0,01	NR	NR	NR	2,88	0,01	NE	NE	0,03	0,95	0,04	0,01	0,56
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		32,04	8,62	3,60	2,05	0,01	NR	NR	NR	0,05	0,01	NE	NE	0,04	1,34	0,06	0,01	0,79
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,26	2,90	0,00	0,00	NR	NR	NR	0,62	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	27,69	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		5,28	0,96	0,34	0,26	0,00	NR	NR	NR	0,00	0,00			0,01	0,17	0,01	0,00	0,10
1 A 3 d ii		1 A 3 d ii National Navigation		10,24	10,79	5,93	3,39	0,00	NR	NR	NR	0,49	0,00	0,01	0,05	0,02	0,09	2,51	0,05	0,14
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,42	0,93	0,21	1,55	NA	NR	NR	NR	0,64	0,04	0,14	0,03	0,18	0,13	0,56	0,06	0,88
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,38	145,10	9,76	6,39	NA	NR	NR	NR	0,17	0,09	0,16	0,06	0,05	0,14	0,15	0,20	2,02
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	50,01	4,37	0,00	0,00	NR	NR	NR	1,09	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,42	29,53	2,15	3,02	NO	NR	NR	NR	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	NR	NR	NR	0,53	0,00	NE		0,02	0,70	0,03	0,00	0,41
1A 4 c iii		1A 4 c iii National Fishing		14,20	1,85	0,59	1,17	0,00	NR	NR	NR	0,03	0,00	0,01	0,01	0,01	0,01	0,19	0,05	0,13
1 A 5 a	(a)	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,01	0,50	0,11	0,06	0,00	NR	NR	NR	0,06	0,00			0,00	0,08	0,00	0,00	0,04
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	40,48	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	3,51	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,20	3,15	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	2,82	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	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	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,73	0,23	0,06	0,94	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,66	NE	NE	NE	0,04	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	0,14	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR				NE				NE	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,61	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	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 notavailable. 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		NA	NA	54,48	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	12,46	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,06	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	26,85	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR										
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE		IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	21,36	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	10,28	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,19	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,04	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	48,11	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,56	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	5,30	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,88	NA	35,90	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
		National Total		290,20	804,88	223,06	181,64	127,32	0,00	0,00	0,00	86,70	1,14	3,16	1,64	6,54	10,59	26,72	4,34	23,33	
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,75	0,57	0,11	0,01	0,00	NR	NR	NR	0,45	0,00			0,00	0,09	0,00	0,00	0,05	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,09	0,83	0,21	0,05		NR	NR	NR		0,00			0,02	0,82	0,03	0,00	0,49	
1 A 3 d i	(a)	International Navigation		79,06	6,73	2,12	37,48	0,00	NR	NR	NR	0,14	0,02	0,03	0,28	0,12	0,28	15,43	0,28	0,66	
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1993 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		94,27	8,28	1,54	104,84	NA	NR	NR	NR	10,42	0,52	2,53	1,10	4,48	2,85	7,01	3,57	14,96
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,17	0,32	0,07	3,87	NA	NR	NR	NR	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		2,81	0,07	0,02	0,00	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	18,24	14,21	3,64	13,18	0,00	NR	NR	NR	0,48	0,24	0,12	0,23	0,51	0,62	9,18	0,18	1,16
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR			NE	NE	NE		NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		8,98	2,02	0,11	2,08	0,00	NR	NR	NR	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	0,78	0,14	0,00	0,00	NR	NR	NR	1,33	0,00	NE	NE	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		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR									

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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	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 3 b i		1 A 3 b i R.T., Passenger cars		57,40	438,75	43,79	0,31	0,64	NR	NR	NR	28,62	0,02	NE		NE	0,09	3,08	0,13	0,02	1,81
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,73	24,11	2,52	0,48	0,01	NR	NR	NR	1,25	0,01	NE		NE	0,03	0,93	0,04	0,01	0,55
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		31,67	8,54	3,56	0,78	0,01	NR	NR	NR	0,02	0,01	NE		NE	0,04	1,33	0,05	0,01	0,78
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,54	2,94	0,00	0,00	NR	NR	NR	0,27	0,00	NE		NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	25,44	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		5,48	1,00	0,36	0,10	0,00	NR	NR	NR	0,00	0,00				0,01	0,18	0,01	0,00	0,10
1 A 3 d ii		1 A 3 d ii National Navigation		11,20	12,09	6,66	3,67	0,00	NR	NR	NR	0,24	0,00	0,01		0,04	0,02	0,09	1,95	0,05	0,14
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR										
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE		IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,46	0,97	0,23	1,47	NA	NR	NR	NR	0,56	0,03	0,13		0,03	0,16	0,11	0,49	0,05	0,82
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR										
1 A 4 b i		1 A 4 b i Residential plants		5,98	152,84	10,33	7,01	NA	NR	NR	NR	0,19	0,10	0,18		0,07	0,06	0,15	0,13	0,24	2,26
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	49,71	4,35	0,00	0,00	NR	NR	NR	0,45	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,35	27,65	2,01	2,94	NO	NR	NR	NR	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	21,79	4,82	1,59	0,00	NR	NR	NR	0,22	0,00	NE		0,02	0,70	0,03	0,00	0,41	
1A 4 c iii		1A 4 c iii National Fishing		11,27	1,47	0,46	0,95	0,00	NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,30	0,83	0,15	0,03	0,00	NR	NR	NR	0,12	0,00			0,00	0,13	0,01	0,00	0,08	
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	35,48	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	3,85	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,22	2,53	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	2,89	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,39	0,20	0,06	1,19	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,04	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,58	NE	NE	NE	0,05	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	0,16	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR				NE				NE	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,59	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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		NA	NA	52,20	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	12,13	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	2,01	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	25,52	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	20,73	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	9,97	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,17	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	48,48	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,90	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	3,57	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	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.

Note 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is notavailable. 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						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,91	NA	35,34	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		NE	NE	NE	NE	NE	NR	NR	NR	NE	NE	NE		NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
		National Total		290,15	811,81	218,63	147,20	124,92	0,00	0,00	0,00	45,23	1,06	3,16		1,63	6,31	10,62	23,06	4,50	23,59
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,77	0,58	0,11	0,01	0,00	NR	NR	NR	0,46	0,00				0,00	0,09	0,00	0,00	0,05
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		5,93	0,81	0,20	0,05		NR	NR	NR		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	NR	NR	NR	0,23	0,03	0,04		0,47	0,20	0,47	27,16	0,45	1,04
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1994 (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 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		97,78	9,03	2,21	105,15	NA	NR	NR	NR	6,40	0,41	1,67	1,00	2,97	2,09	8,16	2,97	14,75
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,89	0,33	0,04	2,68	NA	NR	NR	NR	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		3,07	0,08	0,02	0,00	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	18,05	13,89	3,60	12,46	0,00	NR	NR	NR	0,41	0,23	0,11	0,22	0,50	0,61	9,04	0,18	1,03
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR			NE	NE	NE		NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NR	NR	NR	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	0,94	0,17	0,00	0,00	NR	NR	NR	1,64	0,00	NE	NE	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)		0,59	0,16	0,02	0,00		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A						NR	NR	NR									

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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	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 3 b i		1 A 3 b i R.T., Passenger cars		55,07	410,80	40,91	0,32	0,94	NR	NR	NR	5,21	0,02	NE		NE	0,09	3,20	0,13	0,02	1,88
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		11,21	24,46	2,55	0,52	0,01	NR	NR	NR	0,22	0,01	NE		NE	0,03	0,99	0,04	0,01	0,58
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		32,55	8,71	3,65	0,84	0,01	NR	NR	NR	0,00	0,01	NE		NE	0,04	1,42	0,06	0,01	0,84
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,79	2,89	0,00	0,00	NR	NR	NR	0,05	0,00	NE		NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	24,20	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		4,97	0,91	0,32	0,10	0,00	NR	NR	NR		0,00				0,00	0,16	0,01	0,00	0,10
1 A 3 d ii		1 A 3 d ii National Navigation		10,62	13,20	7,32	3,27	0,00	NR	NR	NR	0,07	0,00	0,01		0,03	0,02	0,08	1,59	0,04	0,14
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR										
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE		IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,31	0,76	0,25	1,29	NA	NR	NR	NR	0,50	0,04	0,12		0,03	0,15	0,11	0,66	0,04	0,79
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR										
1 A 4 b i		1 A 4 b i Residential plants		5,54	146,57	9,97	6,12	NA	NR	NR	NR	0,17	0,09	0,16		0,06	0,05	0,14	0,10	0,21	2,14
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	49,41	4,32	0,00	0,00	NR	NR	NR	0,08	0,00	NE		NE	0,00	0,04	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,36	25,26	1,89	2,71	NO	NR	NR	NR	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	NR	NR	NR	0,04	0,00	NE		0,02	0,69	0,03	0,00	0,41
1A 4 c iii		1A 4 c iii National Fishing		10,94	1,43	0,45	0,78	0,00	NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,26	0,81	0,13	0,03	0,00	NR	NR	NR	0,00	0,00			0,00	0,14	0,01	0,00	0,08
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	39,91	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	4,23	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	5,86	4,27	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	2,99	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,06	0,00	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,55	0,20	0,02	0,52	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,60	NE	NE	NE	0,09	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR				NE				NE	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,59	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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		NA	NA	49,91	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	11,80	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,95	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	24,19	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	19,64	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	9,03	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,15	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,01	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	44,69	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	5,41	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,15	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	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 notavailable. 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						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	2,18	NA	35,47	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	NR	NR	NR	NE	NE	NE		NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
		National Total		290,49	781,27	213,67	144,94	120,64	0,00	0,00	0,00	15,84	0,95	2,28		1,51	4,82	10,10	23,87	3,87	23,21
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,77	0,45	0,08	0,01	0,00	NR	NR	NR	0,15	0,00				0,00	0,09	0,00	0,00	0,05
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,54	0,89	0,22	0,05		NR	NR	NR		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		NR	NR	NR	0,25	0,03	0,05		0,51	0,21	0,51	28,66	0,49	1,14
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1995 (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 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		83,18	10,12	3,32	103,49	NA	NR	NR	NR	5,40	0,28	1,66	0,41	2,09	1,59	5,75	2,63	16,00
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,95	0,36	0,04	2,05	NA	NR	NR	NR	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		3,26	0,10	0,02	0,00	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	17,71	13,73	3,60	10,58	0,00	NR	NR	NR	0,37	0,20	0,10	0,20	0,44	0,58	8,03	0,16	0,98
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR			NE	NE	NE		NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		9,31	12,80	0,14	2,71	0,27	NR	NR	NR	1,54	0,06	0,15	0,08	0,70	0,19	0,58	0,46	0,29
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,37	1,02	0,18	0,00	0,00	NR	NR	NR	1,79	0,00	NE	NE	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)		0,59	0,16	0,02	0,00		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		52,95	396,23	38,63	0,33	1,18	NR	NR	NR	5,27	0,02	NE	NE	0,10	3,25	0,13	0,02	1,91
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,79	23,17	2,45	0,50	0,02	NR	NR	NR	0,23	0,01	NE	NE	0,03	0,97	0,04	0,01	0,57
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		31,92	8,48	3,64	0,85	0,01	NR	NR	NR	0,00	0,01	NE	NE	0,04	1,45	0,06	0,01	0,85
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,07	10,96	2,96	0,00	0,00	NR	NR	NR	0,05	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	21,80	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		5,01	0,91	0,33	0,10	0,00	NR	NR	NR	0,00	0,00			0,00	0,16	0,01	0,00	0,10
1 A 3 d ii		1 A 3 d ii National Navigation		11,22	14,45	8,04	2,78	0,00	NR	NR	NR	0,07	0,00	0,01	0,03	0,01	0,08	1,17	0,04	0,14
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,39	0,88	0,31	0,78	NA	NR	NR	NR	0,43	0,03	0,12	0,02	0,13	0,09	0,61	0,04	0,75
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,50	140,79	9,90	2,72	NA	NR	NR	NR	0,16	0,09	0,16	0,06	0,05	0,14	0,08	0,20	2,15
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,25	49,11	4,29	0,00	0,00	NR	NR	NR	0,08	0,00	NE	NE	0,00	0,04	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,52	21,06	1,85	2,91	NO	NR	NR	NR	0,09	0,04	0,04	0,04	0,09	0,05	1,69	0,04	0,08
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	NR	NR	NR	0,04	0,00	NE		0,02	0,68	0,03	0,00	0,40
1A 4 c iii		1A 4 c iii National Fishing		10,18	1,33	0,42	0,74	0,00	NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,72	0,85	0,19	0,05	0,00	NR	NR	NR	0,10	0,00			0,00	0,14	0,01	0,00	0,08
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	44,10	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	4,27	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,55	3,02	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	3,02	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,18	0,00	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		1,83	0,16	0,02	0,20	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,61	NE	NE	NE	0,06	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR				NE				NE	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,63	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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		NA	NA	45,98	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	10,80	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,81	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	21,01	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	19,05	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	8,55	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,15	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	0,99	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	40,98	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	5,05	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,14	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO

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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 notavailable. 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						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,76	NA	33,12	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	NR	NR	NR	NE	NE	NE		NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
		National Total		272,63	772,27	200,95	135,59	113,62	0,00	0,00	0,00	15,68	0,78	2,25		0,89	3,81	9,59	19,70	3,69	24,50
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,83	0,51	0,12	0,01	0,00	NR	NR	NR	0,18	0,00				0,00	0,10	0,00	0,00	0,06
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		6,69	0,92	0,23	0,05		NR	NR	NR		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		NR	NR	NR	0,26	0,04	0,05		0,51	0,22	0,51	29,02	0,51	1,18
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1996 (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 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		120,70	12,67	4,29	142,21	NA	NR	NR	NR	5,33	0,27	1,75	0,61	2,25	1,73	6,83	2,76	15,96
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,64	0,34	0,03	1,13	NA	NR	NR	NR	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		3,81	0,12	0,02	0,01	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	A	18,00	13,72	3,70	10,06	0,00	NR	NR	NR	0,37	0,20	0,10	0,20	0,44	0,57	7,98	0,16	1,00
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR			NE			NE			
1 A 2 b	(a)	1 A 2 b Non-ferrous Metals		IE	IE	IE	IE	NO	NR	NR	NR			NE	NE	NE		NE	NE	
1 A 2 c	(a)	1 A 2 c Chemicals		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		9,88	12,41	0,13	2,80	0,48	NR	NR	NR	0,73	0,04	0,15	0,07	0,36	0,11	0,32	0,23	0,20
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,37	0,96	0,17	0,00	0,00	NR	NR	NR	1,64	0,00	NE	NE	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		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		50,99	394,95	37,38	0,34	1,37	NR	NR	NR	5,31	0,02	NE	NE	0,10	3,28	0,13	0,02	1,93
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,85	23,11	2,48	0,52	0,02	NR	NR	NR	0,23	0,01	NE	NE	0,03	1,00	0,04	0,01	0,59
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		31,49	8,35	3,61	0,87	0,01	NR	NR	NR	0,00	0,01	NE	NE	0,04	1,48	0,06	0,01	0,87
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,07	11,53	3,17	0,00	0,00	NR	NR	NR	0,05	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	19,06	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		4,98	0,91	0,32	0,10	0,00	NR	NR	NR	0,00	0,00			0,00	0,16	0,01	0,00	0,10
1 A 3 d ii		1 A 3 d ii National Navigation		11,64	15,69	8,74	2,09	0,00	NR	NR	NR	0,07	0,00	0,01	0,02	0,01	0,08	0,86	0,04	0,14
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,46	1,00	0,42	0,75	NA	NR	NR	NR	0,31	0,03	0,10	0,02	0,10	0,08	0,56	0,04	0,66
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,76	141,79	10,24	2,70	NA	NR	NR	NR	0,17	0,10	0,17	0,06	0,05	0,15	0,08	0,21	2,30
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,24	48,80	4,27	0,00	0,00	NR	NR	NR	0,08	0,00	NE	NE	0,00	0,04	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,67	16,68	1,79	2,94	NO	NR	NR	NR	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	NR	NR	NR	0,04	0,00	NE		0,02	0,68	0,03	0,00	0,40
1A 4 c iii		1A 4 c iii National Fishing		11,03	1,44	0,46	1,02		NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,94	0,60	0,11	0,02	0,00	NR	NR	NR	0,10	0,00			0,00	0,09	0,00	0,00	0,06
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	44,52	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	4,68	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	5,88	2,61	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	2,65	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,08	0,00	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,02	0,18	0,02	0,22	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR										
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR										
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,50	NE	NE	NE	0,06	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	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	0,11	0,08	0,01	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	0,73	0,04	0,15	NE	0,01		0,29	NE	5,78	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR										
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,60	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	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	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	Mg
3 A	(a)	3 A PAINT APPLICATION		NA	NA	50,57	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	11,62	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,94	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	22,94	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR										
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	18,44	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	8,45	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,16	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,00	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	40,19	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,93	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,27	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,77	NA	30,48	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
		National Total		310,85	771,30	208,10	170,87	109,92	0,00	0,00	0,00	15,33	0,80	2,48	1,07	3,61	9,69	20,81	3,60	30,27
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,88	0,53	0,12	0,01	0,00	NR	NR	NR	0,13	0,00			0,00	0,11	0,00	0,00	0,06
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7,02	0,97	0,24	0,06		NR	NR	NR		0,01			0,03	0,96	0,04	0,01	0,56
1 A 3 d i	(a)	International Navigation		131,50	11,19	3,52	71,54		NR	NR	NR	0,13	0,02	0,01	0,33	0,13	0,33	19,86	0,27	0,61
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1997 (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 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		79,09	11,19	4,04	73,75	NA	NR	NR	NR	3,60	0,27	1,40	0,44	1,62	1,53	7,28	1,96	11,19
1 A 1 b	(a)	1 A 1 b Petroleum refining		2,12	0,27	0,01	1,32	NA	NR	NR	NR	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		4,98	0,15	0,03	0,01	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	17,79	13,60	3,70	7,57	0,00	NR	NR	NR	0,30	0,17	0,09	0,17	0,37	0,54	6,66	0,14	0,98
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		10,31	13,51	0,14	3,63	0,56	NR	NR	NR	0,20	0,02	0,16	0,06	0,03	0,03	0,06	0,29	0,17
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,38	0,92	0,16	0,00	0,00	NR	NR	NR	1,56	0,00	NE	NE	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		NR	NR	NR		0,00			0,00	0,08	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		48,03	347,65	32,72	0,34	1,69	NR	NR	NR	0,05	0,02	NE	NE	0,10	3,36	0,14	0,02	1,98
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,67	21,01	2,29	0,53	0,03	NR	NR	NR	0,00	0,01	NE	NE	0,03	1,01	0,04	0,01	0,59
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		30,31	7,83	3,43	0,87	0,01	NR	NR	NR	0,00	0,01	NE	NE	0,04	1,49	0,06	0,01	0,88
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,08	12,29	3,35	0,00	0,00	NR	NR	NR	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	17,40	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		4,85	0,88	0,32	0,09	0,00	NR	NR	NR	0,00	0,00			0,00	0,16	0,01	0,00	0,09
1 A 3 d ii		1 A 3 d ii National Navigation		10,25	16,69	9,37	1,85	0,00	NR	NR	NR	0,02	0,00	0,01	0,02	0,01	0,08	0,71	0,04	0,13
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,38	0,96	0,44	0,63	NA	NR	NR	NR	0,20	0,03	0,08	0,02	0,07	0,06	0,54	0,04	0,57
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,39	138,24	10,29	2,51	NA	NR	NR	NR	0,16	0,10	0,16	0,05	0,04	0,14	0,06	0,19	2,22
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,24	48,50	4,24	0,00	0,00	NR	NR	NR	0,00	0,00	NE	NE	0,00	0,04	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,68	15,30	1,97	2,21	NO	NR	NR	NR	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	NR	NR	NR	0,00	0,00	NE		0,02	0,67	0,03	0,00	0,40
1A 4 c iii		1A 4 c iii National Fishing		10,96	1,42	0,45	1,09	0,00	NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,14	0,58	0,13	0,04	0,00	NR	NR	NR	0,12	0,00			0,00	0,09	0,00	0,00	0,05
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	45,68	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	5,34	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,55	1,98	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	2,30	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,09	0,00	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,92	0,25	0,03	0,14	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR										
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR										
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	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	0,04	0,00	0,01	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	0,70	0,03	0,08	NE	0,00	0,05	0,23	NE	5,66	
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR										
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,57	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	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	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		NA	NA	48,94	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	10,90	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,75	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	24,31	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR									
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	17,71	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	7,98	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,12	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,00	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	41,27	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,89	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,87	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,69	NA	29,44	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	NR	NR	NR	NE	NE	NE		NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
		National Total		264,77	718,30	199,81	98,97	109,69	0,00	0,00	0,00	7,69	0,74	2,04		0,86	2,60	9,48	18,79	3,23	25,61
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,94	0,58	0,12	0,01	0,00	NR	NR	NR	0,14	0,00				0,00	0,11	0,00	0,00	0,07
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7,12	0,99	0,24	0,06		NR	NR	NR		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		NR	NR	NR	0,22	0,03	0,05		0,43	0,18	0,43	23,83	0,44	1,01
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

(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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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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1998 (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 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		64,46	11,37	4,24	53,71	NA	NR	NR	NR	3,20	0,28	1,32	0,44	1,26	1,30	5,93	1,65	11,60
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,68	0,23	0,00	0,93	NA	NR	NR	NR	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		5,48	0,16	0,03	0,01	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	17,77	13,56	3,72	7,11	0,00	NR	NR	NR	0,28	0,16	0,09	0,15	0,34	0,53	6,08	0,13	0,97
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		10,48	16,99	0,13	3,37	0,55	NR	NR	NR	0,45	0,02	0,17	0,06	0,03	0,03	0,06	0,09	0,19
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,33	0,82	0,15	0,00	0,00	NR	NR	NR	1,40	0,00	NE	NE	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		NR	NR	NR		0,00			0,00	0,07	0,00	0,00	0,04
1 A 3 b	(a)	**1 A 3 b Road Transportation**	**A**						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		45,48	320,45	29,70	0,36	1,89	NR	NR	NR	0,06	0,02	NE	NE	0,10	3,44	0,14	0,02	2,03
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,20	19,30	2,13	0,51	0,04	NR	NR	NR	0,00	0,01	NE	NE	0,03	0,98	0,04	0,01	0,58
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		29,88	7,72	3,40	0,90	0,01	NR	NR	NR	0,00	0,01	NE	NE	0,05	1,54	0,06	0,01	0,90
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,24	3,60	0,00	0,00	NR	NR	NR	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	15,79	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		4,09	0,74	0,27	0,08	0,00	NR	NR	NR	0,00	0,00			0,00	0,13	0,01	0,00	0,08
1 A 3 d ii		1 A 3 d ii National Navigation		8,46	17,63	9,99	1,68	0,00	NR	NR	NR	0,02	0,00	0,01	0,02	0,01	0,09	0,99	0,03	0,12
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,23	0,92	0,46	0,41	NA	NR	NR	NR	0,12	0,02	0,05	0,01	0,04	0,04	0,29	0,03	0,39
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,14	120,80	9,37	2,35	NA	NR	NR	NR	0,15	0,09	0,15	0,05	0,04	0,13	0,06	0,18	2,00
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,24	48,20	4,21	0,00	0,00	NR	NR	NR	0,00	0,00	NE	NE	0,00	0,04	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,72	12,38	2,08	1,94	NO	NR	NR	NR	0,08	0,04	0,03	0,04	0,09	0,04	1,66	0,04	0,09
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	NR	NR	NR	0,00	0,00	NE		0,02	0,67	0,03	0,00	0,39
1A 4 c iii		1A 4 c iii National Fishing		11,13	1,45	0,46	0,80	0,00	NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		1,30	0,65	0,15	0,04	0,00	NR	NR	NR	0,12	0,00			0,00	0,11	0,00	0,00	0,06
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	27,36	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	5,52	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,56	1,44	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	1,92	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		NA	NA	0,06	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		2,15	0,19	0,02	0,07	NA	NR	NR	NR	NA	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	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	Mg
2 A	(a)	**2 A MINERAL PRODUCTS (b)**	**A**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,03	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	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	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	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	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	0,44	0,04	0,06	NE	0,00	0,05	0,11	NE	3,05
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,50	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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		NA	NA	35,90	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	10,08	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,76	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	16,68	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR										
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE		IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	17,75	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	7,79	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,12	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,01	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,01	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	43,14	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,81	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	5,13	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,69	NA	28,65	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	NR	NR	NR	NE	NE	NE		NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
		National Total		243,18	655,40	173,38	76,09	110,97	0,00	0,00	0,00	6,99	0,71	1,89		0,83	2,17	9,29	16,33	2,68	23,08
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,97	0,60	0,12	0,01	0,00	NR	NR	NR	0,14	0,00				0,00	0,12	0,00	0,00	0,07
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		7,69	1,06	0,26	0,06		NR	NR	NR		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		NR	NR	NR	0,20	0,03	0,05		0,37	0,16	0,37	19,82	0,41	0,96
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

(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.

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1999 (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 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		51,93	11,14	4,17	36,01	NA	NR	NR	NR	2,85	0,29	1,40	0,48	1,33	1,31	4,37	1,51	11,75
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,66	0,23	0,00	0,53	NA	NR	NR	NR	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		5,95	0,17	0,04	0,01	NA	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	17,39	13,57	3,70	6,41	0,00	NR	NR	NR	0,27	0,15	0,08	0,14	0,32	0,52	5,70	0,13	0,97
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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	NO	NR	NR	NR	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)		9,58	15,35	0,11	2,19	0,56	NR	NR	NR	0,59	0,02	0,16	0,05	0,03	0,03	0,06	0,24	0,18
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,30	0,80	0,14	0,00	0,00	NR	NR	NR	1,39	0,00	NE	NE	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	NR	NR	NR	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**						NR	NR	NR									

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		41,09	297,45	26,73	0,29	2,05	NR	NR	NR	0,06	0,02	NE	NE	0,10	3,47	0,14	0,02	2,04
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,14	18,46	2,07	0,29	0,04	NR	NR	NR	0,00	0,01	NE	NE	0,03	0,99	0,04	0,01	0,59
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		29,21	7,45	3,32	0,51	0,01	NR	NR	NR	0,00	0,01	NE	NE	0,05	1,57	0,06	0,01	0,92
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,14	3,34	0,00	0,00	NR	NR	NR	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	13,62	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		3,73	0,72	0,28	0,04	0,00	NR	NR	NR	0,00	0,00			0,00	0,12	0,01	0,00	0,07
1 A 3 d ii		1 A 3 d ii National Navigation		7,69	18,72	10,65	1,72	0,00	NR	NR	NR	0,02	0,00	0,00	0,02	0,01	0,09	1,06	0,03	0,11
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**						NR	NR	NR									
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
1 A 3 e ii		1 A 3 e ii Other mobile sources and machinery		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,36	0,93	0,56	0,47	NA	NR	NR	NR	0,23	0,03	0,10	0,02	0,07	0,06	0,37	0,03	0,69
1 A 4 b	(a)	**1 A 4 b Residential**	**A**						NR	NR	NR									
1 A 4 b i		1 A 4 b i Residential plants		5,01	121,67	9,45	2,21	NA	NR	NR	NR	0,14	0,09	0,15	0,05	0,04	0,13	0,06	0,17	2,03
1 A 4 b ii		1 A 4 b ii Household and gardening (mobile)		0,24	47,90	4,19	0,00	0,00	NR	NR	NR	0,00	0,00	NE	NE	0,00	0,04	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	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	Mg
1 A 4 c	(a)	**1 A 4 c Agriculture / Forestry / Fishing**	**A**						NR	NR	NR										
1 A 4 c i		1 A 4 c i Stationary		1,66	10,15	1,95	1,67	NO	NR	NR	NR	0,08	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	20,92	4,60	0,38	0,00	NR	NR	NR	0,00	0,00	NE		0,02	0,66	0,03	0,00	0,39
1A 4 c iii		1A 4 c iii National Fishing		11,16	1,45	0,46	0,78	0,00	NR	NR	NR	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)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,96	0,72	0,13	0,02	0,00	NR	NR	NR	0,08	0,00	0,00	0,00	0,00	0,10	0,00	0,00	0,06
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**						NR	NR	NR										
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	24,16	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 1 b	(a)	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NR	NR	NR	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	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2	(a)	**1 B 2 Oil and natural gas**	**A**						NR	NR	NR										
1 B 2 a	(a)	**1 B 2 a Oil**	**A**						NR	NR	NR										
1 B 2 a i	(a)	1 B 2 a i Exploration Production, Transport		NA	NA	8,06	IE	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,56	1,36	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	1,49	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a vi	(a)	1 B 2 a vi Other		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 B 2 b	(a)	1 B 2 b Natural gas		0,00	NA	0,07	0,00	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 B 2 c	(a)	1 B 2 c Venting and flaring		4,66	0,40	0,05	0,05	NA	NR	NR	NR	NA	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	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**						NR	NR	NR									
2 A 1	(a)	2 A 1 Cement Production		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 2	(a)	2 A 2 Lime Production		IE	IE	IE	IE	IE	NR	NR	NR	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	NR	NR	NR	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	NR	NR	NR	IE	IE	IE	IE	IE	IE	IE	IE	IE
2 A 5	(a)	2 A 5 Asphalt Roofing		NE	NE	NE	NE	NE	NR	NR	NR	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	NR	NR	NR	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	0,04	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B	(a)	**2 B CHEMICAL INDUSTRY**	**A**						NR	NR	NR									
2 B 1	(a)	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,45	NE	NE	NE	0,02	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 B 3	(a)	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 4	(a)	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NR	NR	NR	NO	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	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE
2 C	(a)	2 C METAL PRODUCTION		NA	NE	NE	NA	NA	NR	NR	NR	0,73	0,01	0,05	NE	0,00	0,05	0,09	NE	2,76
2 D	(a)	2 D OTHER PRODUCTION (b)	**A**						NR	NR	NR									
2 D 1	(a)	2 D 1 Pulp and Paper		NE	NE	NE	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,50	NE	NE	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA
2 G	(a)	2 G OTHER (Please specify in a covering note)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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		NA	NA	35,29	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	9,73	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,78	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	16,60	NA	NA	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B	(a)	**4 B MANURE MANAGEMENT (c)**	**A**						NR	NR	NR										
4 B 1	(a)	4 B 1 Cattle		IE	IE	IE	IE	IE	NR	NR	NR	IE	IE	IE		IE	IE	IE	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	16,86	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	7,64	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,11	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,01	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 5	(a)	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,04	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 7	(a)	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO		NO	NO	NO	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	42,02	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,95	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,55	NR	NR	NR	NA	NA	NA		NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A						NR	NR	NR										
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,65	NA	26,00	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
5 B	(a)	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NR	NR	NR	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	NR	NR	NR	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
7	(a)	7 OTHER		NO	NO	NO	NO	NO	NR	NR	NR	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
		National Total		225,43	625,64	169,41	54,96	105,93	0,00	0,00	0,00	7,10	0,70	1,98	0,86	2,23	9,34	14,37	2,67	23,29
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,03	0,62	0,12	0,01	0,00	NR	NR	NR	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)		8,17	1,12	0,28	0,07	0,00	NR	NR	NR	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		NR	NR	NR	0,20	0,03	0,04	0,38	0,16	0,38	20,97	0,40	0,93
5 E	(a)	5 E Other							NR	NR	NR										
X		X (11 08 Volcanoes)							NR	NR	NR										

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

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2000 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		43,36	10,51	3,91	12,09	NA	1011,59	808,85	678,69	2,96	0,20	0,57	0,53	0,44	0,58	2,07	0,90	12,47
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,53	0,24	0,00	0,61	NA	143,93	130,70	124,09	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		6,31	0,18	0,04	0,01	NA	2,63	1,58	1,32	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	16,00	13,55	3,71	5,91	0,00	1388,82	1240,66	1114,96	0,25	0,15	0,08	0,14	0,30	0,51	5,31	0,12	0,97
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	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	NO	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	NO	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	NO	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	NO	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)		10,45	15,30	0,12	1,69	0,50	532,05	466,62	269,60	0,36	0,02	0,16	0,06	0,03	0,03	0,06	0,36	0,20
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,26	0,78	0,14	0,00	0,00	1,68	1,68	1,68	1,37	0,00	NE	NE	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	0,02	0,00	0,00	1,70	1,70	1,70	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**																	

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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	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	Mg
1 A 3 b i		1 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
1 A 3 b ii		1 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
1 A 3 b iii		1 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
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,09	13,21	3,15	0,00	0,00	50,18	50,18	50,18	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	9,22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	1342,26	1007,53	547,79	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	952,76	476,38	257,24	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 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
1 A 3 d ii		1 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
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**																	
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
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
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,13	0,90	0,63	0,35	NA	163,45	157,36	146,71	0,20	0,02	0,05	0,02	0,02	0,03	0,23	0,03	0,21
1 A 4 b	(a)	**1 A 4 b Residential**	**A**																	
1 A 4 b i		1 A 4 b i Residential plants		4,85	139,80	10,55	1,90	NA	12111,48	11498,54	10880,78	0,13	0,10	0,15	0,04	0,03	0,14	0,05	0,14	2,27
1 A 4 b ii		1 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

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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	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	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		1,46	9,11	1,75	1,57	NO	567,93	529,14	492,98	0,06	0,03	0,03	0,03	0,07	0,03	1,15	0,03	0,08
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		20,33	20,78	4,56	0,38	0,00	2056,17	1953,99	1857,95	0,00	0,00	NE		0,02	0,66	0,03	0,00	0,39
1A 4 c iii		1A 4 c iii National Fishing		11,16	1,45	0,46	0,78	0,00	354,32	336,62	319,79	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)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
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
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	21,78	NA	NA	NA	962,25	384,90	38,49	NA	NA	NA	NA	NA	NA	NA	NA	NA
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		NA	NA	10,74	IE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,98	0,98	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	1,05	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	0,07	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		3,05	0,26	0,03	0,05	NA	2,69	2,69	2,69	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	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	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	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	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	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	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	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	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	0,03	191,00	47,75	7,64	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	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	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	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	NO
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		0,04	NE	0,03	0,00	0,01	NE	NE	NE	NE	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	NE	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	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	NA
2 G	(a)	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

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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	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	Mg
3 A	(a)	3 A PAINT APPLICATION		NA	NA	39,14	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	10,79	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,96	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	18,16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	IE	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	17,20	612,39	275,56	61,26	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	7,89	1187,55	534,37	118,80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,12	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,01	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,03	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	40,59	11592,54	5216,88	1158,78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	5,01	2674,54	1203,91	267,24	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,68	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	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	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	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																		
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,68	NA	26,08	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	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	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	0,06	0,06	0,06	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	NO	NO	NO
		National Total		207,57	615,26	172,09	28,35	105,41	43158,67	31344,94	23241,04	6,78	0,61	1,14	0,89	1,26	8,46	11,33	2,18	23,03
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,07	0,64	0,12	0,01	0,00	3,93	3,93	3,93	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)		8,38	1,15	0,29	0,07	0,00	34,00	34,00	34,00	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, SO.

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2001 (as YYYY, year of Emmissions)

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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			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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		43,67	11,46	4,24	10,40	NA	1129,26	886,60	736,46	2,20	0,22	0,61	0,45	0,45	0,65	1,89	0,62	13,40
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,84	0,24	0,00	0,60	NA	150,92	136,49	129,28	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		6,16	0,17	0,04	0,01	NA	2,56	1,54	1,29	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 2	(a)	**1 A 2 Manufacturing Industries and Construction**	**A**	15,66	13,61	3,69	5,81	0,00	1321,13	1183,64	1067,56	0,24	0,15	0,08	0,13	0,30	0,50	5,28	0,12	0,97
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	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	NO	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	NO	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	NO	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	NO	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)		10,30	13,54	0,10	2,16	0,44	566,65	496,72	286,56	0,20	0,02	0,16	0,06	0,03	0,03	0,06	0,29	0,17
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,26	0,78	0,14	0,00	0,00	1,66	1,66	1,66	1,34	0,00	NE	NE	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)		0,48	0,11	0,02	0,00	0,00	1,82	1,82	1,82	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**																	

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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	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	Mg
1 A 3 b i		1 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	2,03
1 A 3 b ii		1 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
1 A 3 b iii		1 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
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,09	11,71	2,50	0,00	0,00	40,30	40,30	40,30	0,00	0,00	NE	NE	0,00	0,03	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	7,52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	1346,54	1009,50	549,63	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	950,80	475,40	256,72	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 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
1 A 3 d ii		1 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
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**																	
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
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
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,14	0,95	0,72	0,26	NA	173,20	168,77	158,65	0,18	0,02	0,04	0,01	0,02	0,02	0,13	0,02	0,25
1 A 4 b	(a)	**1 A 4 b Residential**	**A**																	
1 A 4 b i		1 A 4 b i Residential plants		5,12	151,67	11,28	1,84	NA	12223,51	11602,80	10990,92	0,14	0,11	0,16	0,04	0,03	0,15	0,04	0,15	2,47
1 A 4 b ii		1 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

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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	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	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		1,46	8,54	1,63	1,60	NO	535,03	497,78	463,13	0,06	0,03	0,03	0,03	0,06	0,03	1,07	0,03	0,09
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		20,25	20,77	4,55	0,38	0,00	2046,84	1945,14	1849,53	0,00	0,00	NE		0,02	0,66	0,03	0,00	0,39
1A 4 c iii		1A 4 c iii National Fishing		10,58	1,38	0,44	0,74	0,00	333,65	316,98	301,15	0,02	0,00	0,01	0,01	0,01	0,01	0,01	0,04	0,09
1 A 5 a	(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
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
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	23,51	NA	NA	NA	1038,60	415,44	41,54	NA	NA	NA	NA	NA	NA	NA	NA	NA
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		NA	NA	9,92	IE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,34	0,67	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	1,03	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	0,09	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		3,27	0,28	0,04	0,05	NA	2,19	2,19	2,19	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

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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	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	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	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	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	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	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	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	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	0,03	189,00	47,25	7,56	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	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	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	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	NO
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		0,02	NE	0,03	0,00	0,07	NE	NE	NE	NE	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	NE	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	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	NA
2 G	(a)	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

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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	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		NA	NA	21,93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	9,65	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,64	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	10,15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	16,81	600,67	270,29	60,09	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	8,25	1236,83	556,55	123,73	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,13	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,01	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,03	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	40,76	12259,58	5517,06	1225,45	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	5,03	2630,22	1183,97	262,81	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,80	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	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	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	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																		
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,69	NA	24,85	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	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	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	0,04	0,04	0,04	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	NO	NO	NO
		National Total		202,84	617,90	140,34	26,27	104,60	43864,72	31619,39	23234,34	6,14	0,66	1,28	0,79	1,26	8,53	11,05	1,79	25,52	
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,06	0,63	0,11	0,01	0,00	3,88	3,88	3,88	0,11	0,00	0,00	0,00	0,00	0,13	0,01	0,00	0,07	
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		8,55	1,17	0,29	0,07	0,00	34,62	34,62	34,62	0,00	0,01	0,00	0,00	0,03	1,16	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, SO.

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

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2002 (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 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	Mg
1 A 1 a	(a)	1 A 1 a Public Electricity and Heat Production		45,17	11,74	4,24	9,99	NA	1212,86	949,11	781,67	2,31	0,22	0,66	0,40	0,47	0,63	2,54	0,72	14,32
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,69	0,23	0,00	0,93	NA	144,12	130,49	123,68	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		6,60	0,18	0,04	0,01	NA	2,75	1,65	1,38	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	15,28	13,85	3,69	5,06	0,00	1245,53	1114,51	1005,85	0,24	0,15	0,09	0,13	0,29	0,51	5,18	0,11	1,15
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	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	NO	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	NO	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	NO	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	NO	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)		9,42	10,34	0,11	1,43	0,36	445,51	385,69	234,98	0,20	0,02	0,16	0,06	0,03	0,03	0,06	0,29	0,17
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,22	0,75	0,13	0,00	0,00	1,52	1,52	1,52	1,33	0,00	NE	NE	0,00	0,02	0,00	0,00	0,01
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,41	0,11	0,02	0,00	0,00	1,60	1,60	1,60	0,00	0,00	0,00	0,00	0,00	0,05	0,00	0,00	0,03
1 A 3 b	(a)	**1 A 3 b Road Transportation**	A																	

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		32,43	247,45	19,80	0,21	2,31	723,49	723,49	723,49	0,05	0,02	NE	NE	0,10	3,49	0,14	0,02	2,05
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,15	16,45	1,91	0,06	0,06	1564,21	1564,21	1564,21	0,00	0,01	NE	NE	0,03	1,06	0,04	0,01	0,62
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		24,06	6,18	2,74	0,09	0,01	1166,68	1166,68	1166,68	0,00	0,01	NE	NE	0,04	1,51	0,06	0,01	0,89
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,11	13,71	2,81	0,00	0,00	44,79	44,79	44,79	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	7,20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	1315,21	985,50	536,88	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	926,49	463,24	250,15	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		3,40	0,63	0,24	0,01	0,00	123,81	123,81	123,81	0,00	0,00			0,00	0,11	0,00	0,00	0,07
1 A 3 d ii		1 A 3 d ii National Navigation		9,12	20,08	11,39	2,05	0,00	619,20	589,41	561,10	0,02	0,00	0,01	0,03	0,02	0,10	1,52	0,04	0,13
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**																	
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
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
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,13	0,94	0,75	0,60	NA	205,40	196,51	181,49	0,05	0,02	0,04	0,02	0,02	0,02	0,32	0,02	0,19
1 A 4 b	(a)	**1 A 4 b Residential**	**A**																	
1 A 4 b i		1 A 4 b i Residential plants		4,89	147,19	10,97	1,80	NA	11515,91	10927,54	10347,92	0,13	0,11	0,16	0,04	0,04	0,14	0,12	0,14	2,38
1 A 4 b ii		1 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

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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	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	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		1,46	8,59	1,65	1,29	NO	523,36	488,71	456,99	0,05	0,02	0,02	0,02	0,05	0,03	0,89	0,03	0,08
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		19,97	20,77	4,51	0,38	0,00	2012,45	1912,46	1818,47	0,00	0,00	NE		0,02	0,66	0,03	0,00	0,39
1A 4 c iii		1A 4 c iii National Fishing		11,90	1,55	0,49	0,84	0,00	375,47	356,71	338,89	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)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
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
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	21,26	NA	NA	NA	939,30	375,72	37,57	NA	NA	NA	NA	NA	NA	NA	NA	NA
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		NA	NA	10,51	IE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	4,30	0,33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	1,04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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	0,06	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		2,71	0,24	0,03	0,07	NA	2,92	2,92	2,92	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

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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	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	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	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	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	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	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	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	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	0,05	172,00	43,00	6,88	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	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	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	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	NO
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		0,03	NE	0,03	NE	0,04	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	0,07	0,00	0,00	NE	0,00	0,05	0,00	NE	0,63
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	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,53	NE	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)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	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	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		NA	NA	27,94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	8,77	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,70	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	11,82	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	16,06	587,41	264,32	58,77	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	7,26	1143,33	514,47	114,38	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,10	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,02	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	41,07	12380,63	5571,54	1237,55	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,97	2541,93	1144,22	253,99	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,93	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	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	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	Mg
4 D	(a)	**4 D AGRICULTURAL SOILS**	A																		
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,65	NA	23,41	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	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	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	0,05	0,05	0,05	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	NO	NO	NO
		National Total		201,20	590,15	145,29	25,15	101,72	42501,47	30419,96	22231,30	5,25	0,62	1,16	0,75	1,27	8,57	11,91	1,89	23,73	
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		1,00	0,64	0,12	0,01	0,00	3,59	3,59	3,59	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)		7,74	0,97	0,27	0,06	0,00	29,67	29,67	29,67	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, SO.

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

COUNTRY: DK (as ISO2 code)
DATE: 16.03.2005 (as DD.MM.YYYY)
YEAR: 2003 (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 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		56,25	12,20	4,22	16,96	NA	1301,37	1020,33	837,02	1,89	0,20	0,71		0,45	0,47	0,60	2,74	1,02	13,34
1 A 1 b	(a)	1 A 1 b Petroleum refining		1,65	0,24	0,00	0,49	NA	128,14	119,07	114,54	0,02	0,01	0,00		0,01	0,03	0,01	0,58	0,01	0,00
1 A 1 c	(a)	1 A 1 c Manufacture of Solid Fuels and Other Energy Industries		6,61	0,18	0,04	0,01	NA	2,75	1,65	1,38	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	15,18	13,84	3,64	4,71	0,00	1313,35	1109,23	990,08	0,22	0,14	0,08		0,11	0,26	0,50	4,53	0,10	1,15
1 A 2 a	(a)	1 A 2 a Iron and Steel		IE	IE	IE	IE	NO	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	NO	25,82	23,25	10,71	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	NO	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	NO	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	NO	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)		8,89	9,25	0,09	1,35	0,33	435,46	379,00	236,75	0,30	0,02	0,15		0,05	0,03	0,03	0,05	0,25	0,16
1 A 3 a ii (i)		1 A 3 a ii Civil Aviation (Domestic, LTO)		0,18	0,60	0,10	0,00	0,00	1,24	1,24	1,24	1,03	0,00	NE		NE	0,00	0,02	0,00	0,00	0,01
1 A 3 a ii (ii)		1 A 3 a ii Civil Aviation (Domestic, Cruise)		0,40	0,12	0,02	0,00	0,00	1,65	1,65	1,65	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																		

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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	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	Mg
1 A 3 b i		1 A 3 b i R.T., Passenger cars		29,91	238,54	18,26	0,21	2,41	709,98	709,98	709,98	0,05	0,02	NE	NE	0,10	3,55	0,15	0,02	2,09
1 A 3 b ii		1 A 3 b ii R.T., Light duty vehicles		10,45	15,63	1,88	0,07	0,07	1551,32	1551,32	1551,32	0,00	0,01	NE	NE	0,03	1,13	0,05	0,01	0,66
1 A 3 b iii		1 A 3 b iii R.T., Heavy duty vehicles		24,42	6,29	2,80	0,10	0,01	1157,03	1157,03	1157,03	0,00	0,01	NE	NE	0,05	1,63	0,07	0,01	0,96
1 A 3 b iv		1 A 3 b iv R.T., Mopeds & Motorcycles		0,12	14,01	2,75	0,00	0,00	45,45	45,45	45,45	0,00	0,00	NE	NE	0,00	0,04	0,00	0,00	0,02
1 A 3 b v		1 A 3 b v R.T., Gasoline evaporation		NA	NA	6,16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi		1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	1310,43	981,85	534,94	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii		1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	925,16	462,58	249,79	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c	(a)	1 A 3 c Railways		3,54	0,61	0,22	0,01	0,00	118,60	118,60	118,60		0,00			0,00	0,12	0,00	0,00	0,07
1 A 3 d ii		1 A 3 d ii National Navigation		8,84	20,04	11,38	1,86	0,00	587,59	559,38	532,57	0,02	0,00	0,01	0,03	0,01	0,10	1,35	0,04	0,13
1 A 3 e	**(a)**	**1 A 3 e Other (Please specify in a covering note)**	**A**																	
1 A 3 e i		1 A 3 e i Pipeline compressors		IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE	IE
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
1 A 4 a	(a)	1 A 4 a Commercial / Institutional		1,24	0,94	0,75	0,36	NA	192,18	185,23	172,16	0,15	0,02	0,09	0,02	0,04	0,06	0,17	0,02	0,55
1 A 4 b	(a)	**1 A 4 b Residential**	**A**																	
1 A 4 b i		1 A 4 b i Residential plants		4,86	149,24	11,11	1,74	NA	11601,15	11004,63	10416,91	0,13	0,11	0,16	0,03	0,03	0,14	0,05	0,13	2,39
1 A 4 b ii		1 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

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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	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	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	8,60	1,63	1,51	NO	529,47	492,81	459,36	0,04	0,02	0,02	0,02	0,04	0,02	0,60	0,02	0,09
1 A 4 c ii		1 A 4 c ii Off-road Vehicles and Other Machinery		19,63	20,77	4,46	0,38	0,00	2012,45	1912,46	1818,47	0,00	0,00	NE		0,02	0,66	0,03	0,00	0,39
1A 4 c iii		1A 4 c iii National Fishing		11,39	1,48	0,47	0,86	0,00	367,28	348,93	331,50	0,02	0,00	0,01	0,01	0,01	0,01	0,08	0,04	0,10
1 A 5 a	(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
1 A 5 b	(a)	1 A 5 b Other, Mobile (Including military)		0,45	0,31	0,06	0,00	0,00	24,87	24,87	24,87	0,08	0,00	0,00	0,00	0,00	0,05	0,00	0,00	0,03
1B1	(a)	**1B1 Fugitive Emissions from Solid Fuels**	**A**																	
1 B 1 a	(a)	1 B 1 a Coal Mining and Handling		NA	31,78	NA	NA	NA	1404,12	561,65	56,16	NA	NA	NA	NA	NA	NA	NA	NA	NA
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		NA	NA	10,06	IE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv	(a)	1 B 2 a iv Refining / Storage		NA	NA	3,71	0,25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v	(a)	1 B 2 a v Distribution of oil products		NA	NA	1,04	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	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		NA	NA	0,06	NA	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		2,83	0,24	0,03	0,10	NA	2,18	2,18	2,18	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

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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	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	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	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	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	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	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	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	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	0,16	0,00	0,00	0,00	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	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
2 B 2	(a)	2 B 2 Nitric Acid Production		0,46	NE	NE	NE	0,06	323,00	258,00	194,00	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	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	NO
2 B 5	(a)	2 B 5 Other (Please specify in a covering note)		0,02	NE	0,03	NE	0,06	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	0,07	0,00	0,00	NE	0,00	0,05	0,00	NE	0,63
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	NA
2 D 2	(a)	2 D 2 Food and Drink		NE	NE	0,52	NE	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)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	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	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		NA	NA	41,36	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B	(a)	3 B DEGREASING AND DRY CLEANING		NA	NA	8,50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C	(a)	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	1,21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D	(a)	3 D OTHER including products containing HMs and POPs (Please specify in a covering note)		NA	NA	16,10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	IE	IE
4 B 1 a	(a)	4 B 1 a Dairy		NA	NA	NA	NA	15,17	574,34	258,44	57,46	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b	(a)	4 B 1 b Non-Dairy		NA	NA	NA	NA	6,60	1087,30	489,26	108,78	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2	(a)	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3	(a)	4 B 3 Sheep		NA	NA	NA	NA	0,11	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 4	(a)	4 B 4 Goats		NA	NA	NA	NA	0,02	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO
4 B 6	(a)	4 B 6 Horses		NA	NA	NA	NA	1,00	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NO	NO
4 B 8	(a)	4 B 8 Swine		NA	NA	NA	NA	39,53	12591,55	5666,46	1258,64	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9	(a)	4 B 9 Poultry		NA	NA	NA	NA	4,64	2159,02	971,84	215,72	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13	(a)	4 B 13 Other		NA	NA	NA	NA	4,70	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C	(a)	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	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	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	Mg
4 D	(a)	4 D AGRICULTURAL SOILS	A																		
4 D 1	(a)	4 D 1 Direct Soil Emission		NA	NA	1,64	NA	22,91	NE	NE	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F	(a)	4 F FIELD BURNING OF AGRICULTURAL WASTES		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 G	(a)	4 G OTHER (d)		NO	NO	NO	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	NO	NO	NO
6 A	(a)	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B	(a)	6 B WASTE-WATER HANDLING		NA	NA	NE	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 C	(a)	6 C WASTE INCINERATION (e)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
6 D	(a)	6 D OTHER WASTE (f)		0,00	0,00	0,00	0,00	NE	0,05	0,05	0,05	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	NO	NO	NO
		National Total		209,11	592,52	158,50	30,96	97,79	42684,87	30496,76	22243,14	4,66	0,58	1,24	0,76	1,23	8,80	10,57	2,11	23,27
Memo Items																					
1 A 3 a i (i)	(a)	International Aviation (LTO)		0,93	0,63	0,11	0,01	0,00	3,34	3,34	3,34	0,09	0,00	0,00	0,00	0,00	0,11	0,00	0,00	0,06
1 A 3 a i (ii)	(a)	International Aviation (Cruise)		8,35	1,06	0,30	0,06	0,00	31,96	31,96	31,96	0,00	0,01	0,00	0,00	0,03	1,07	0,04	0,01	0,63
1 A 3 d i	(a)	International Navigation		85,76	7,29	2,29	44,11		4976,36	4727,55	4491,17	0,15	0,02	0,03	0,27	0,12	0,27	15,04	0,30	0,69
5 E	(a)	5 E Other																			
X		X (11 08 Volcanoes)																			

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

(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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1980 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP		A= Allowable Aggregation	*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																	PAH							
			Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxaphcNR	HCH	DDT	PCB	DIOX	pyreNR benzo(a) fluoranthcNR	benzo(b) fluoranthcNR benzo(k)	IndeNA pyreNR (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B	2 B C HEMICAL INDUSTRY	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D	2 D OTHER PRODUCTION (a)	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B	4 B MANURE MANAGEMENT (b)	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	4 D AGRICULTURAL SOILS	x										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																										
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1981 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxapheNR	HCH	DDT	PCB	DIOX	pyreNR benzo(a) fluoranthreNR	benzo(b) fluoranthreNR	benzo(k)	IndeNA pyreNR (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1	**1 B 1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D	2 D OTHER PRODUCTION (a)	[a]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluoranteNR, benzo(k)fluoranteNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1982 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	ChlordaNR	ChlordeoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxapheNR	HCH	DDT	PCB	DIOX	pyreNR	benzo(a) fluoranthreNR	benzo(b) fluoranthreNR	benzo(k)	indeNA pyreNR (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR		
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b	**1 A 4 b Residential**	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1B1	**1 B1 Fugitive Emissions from Solid Fuels**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a	**1 B 2 a Oil**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D	2 D OTHER PRODUCTION (a)	[a]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1983 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																					*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																	PAH								
		A = Allowable Aggregation	Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxapheNR	HCH	DDT	PCB	DIOX	pyreNR benzo(a)	fluoranitheNR	benzo(b)	fluoranitheNR benzo(k)	pyreNR (1,2,3-cd)	IndeNA	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 A 3 e i	1 A 3 e i Pipeli NR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machi NR ry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1	**1 B 1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 3	2 A 3 Limesto NR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B	2 B CHEMICAL INDUSTRY	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D	2 D OTHER PRODUCTION (a)	[a]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B	4 B MANURE MANAGEMENT (b)	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	*										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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:	14.02.2005	(as DD.MM.YYYY)
YEAR:	1984	(as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																			*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																	PAH								
		A=Allowable Aggregation	Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxaphenNR	HCH	DDT	PCB	DIOX	benzo(a) pyreNR	benzo(a) fluoranthNR	benzo(b) fluoranthNR	benzo(k)	IndeNA pyreNR (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	[1]										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b	**1 A 4 b Residential**	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	[1]										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	[1]										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a	**1 B 2 a Oil**	[1]										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	[1]										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**											NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D	2 D OTHER PRODUCTION (a)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**											NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	[a]										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1985 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																PAH								
		A=Allowable Aggregation	Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	TotaphteNR	HCH	DDT	PCB	DIOX	pyreNR benzo(a) fluoranthteNR	benzo(b)	fluoranthteNR benzo(k)	pyreNR (1,2,3-cd) IndeNA	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	^										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b	**1 A 4 b Residential**	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a	**1 B 2 a Oil**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	^										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**											NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D	2 D OTHER PRODUCTION (a)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**											NR			NR	NR	NR	NR	NR	0,00	NR	NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	*										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
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(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
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NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1986 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
			Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxapheNR	HCH	DDT	PCB	DIOX	benzo(a) pyreNR	benzo(b) fluorantheNR	fluorantheNR benzo(k)	Ind&NA pyreNR (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00
Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

(a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste inciNRration for eNRrgy (this is included in 1 A 1);
(e) 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1987 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	*Yearly minimum reporting*																					*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																	PAH								
			Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxapheNR	HCH	DDT	PCB	DIOX	pyreNR	benzo(a) fluoranthreNR	benzo(b)	fluoranthreNR	benzo(k)	IndeNA pyreNR (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00

Memo Items																							
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluoranteNR, benzo(k)fluoranteNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1988 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																					*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																	PAH								
		A =Allowable Aggregation	Aldrin kg	ChlordaNR kg	ChlordecoNR kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	ToxapheNR kg	HCH kg	DDT kg	PCB kg	g I-Teq DIOX	benzo(a) pyreNR Mg	fluoranthe NR Mg	benzo(b) fluoranthe NR Mg	benzo(k) Mg	IndeNA pyreNR (1,2,3-cd) Mg	Total 1-4 Mg	HCB kg	PCP kg	SCCP kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA	0,00	0,00

Memo Items																							
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR	NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1989 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
			Aldrin	ChlordaNR	ChlordecoNR	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	ToxapheNR	HCH	DDT	PCB	DIOX	pyreNR	benzo(a) fluorantheNR	benzo(b)	fluorantheNR	benzo(k) pyreNR	IndeNA (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b	**1 A 3 b Road Transportation**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR		
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR	

1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 a	1 A 5 a Other, Stationary (including Military)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 b	1 B 1 b Solid fuel transformation		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a	**1 B 2 a Oil**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
2 B 1	2 B 1 Ammonia Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 3	2 B 3 Adipic Acid Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 4	2 B 4 Carbide Production		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A										NR			NR	NR	NR	NR	NR	0,00	NR	NR	
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 2	4 B 2 Buffalo		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 5	4 B 5 Camels and Llamas		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 7	4 B 7 Mules and Asses		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR	NR	NR

4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A										NR			NR	NR	NR	NR	NR	0,00	NR		NR	
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 F	4 F FIELD BURNING OF AGRICULTURAL WASTES		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	0,00	NA		0,00	0,00
Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NR	NA	NA	NR	NR	NR	NR	NR	0,00	NR		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	0,00	NR		NR	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NR	NO	NO	NR	NR	NR	NR	NR	NA	NR		NR	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1990 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,01	0,05	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,02	0,01	0,07	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,00	0,00	0,05	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,04	0,03	0,03	0,12	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,04	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,05	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,04	0,05	0,02	0,04	0,15	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,63	2,11	0,70	1,19	5,62	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,21	0,23	0,03	0,32	0,80	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	1,96	2,56	0,87	1,64	7,03	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,02	0,04	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1991 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	fluoranthene	benzo(k)	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,01	0,06	NA		NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,06	NA		NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,00	0,05	NA		NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00				
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,04	0,03	0,03	0,13	NA		NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA		NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,05	NA		NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,04	0,05	0,02	0,03	0,13	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,91	2,47	0,81	1,43	6,61	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,24	0,26	0,04	0,38	0,90	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00			
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	NO	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
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	NO	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00			
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,26	2,95	0,98	1,93	8,11	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,02	0,04	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1992 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	fluoranthene	benzo(k)	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,01	0,06	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,06	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,00	0,06	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00				
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,04	0,03	0,03	0,13	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,04	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,05	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,01	NA	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00			
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,04	0,05	0,02	0,04	0,15	NA	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,94	2,52	0,83	1,43	6,72	NA	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,19	0,21	0,03	0,29	0,73	NA	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,01	0,03	NA	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA	NR	NR
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	NO	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00			
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00			
1 B 2 a	**1 B 2 a Oil**	A																		0,00			
1 B 2 a i	1 B 2 a i Exploration Production, Transport	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00			
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00			
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	NO	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
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	NO	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00			
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,26	2,96	1,00	1,86	8,07	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,01	0,02	0,05	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1993 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																			*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																PAH							
		A = Allwaeks Aggregation	Aldrin kg	Chlordane kg	Chlordecone kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	DIOX g I-Teq	benzo(a) pyrene Mg	benzo(b) fluoranthene Mg	benzo(k) fluoranthene Mg	Indeno pyrene (1,2,3-cd) Mg	Total 1-4 Mg	HCB kg	PCP kg	SCCP kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,01	0,07	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,06	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,00	0,06	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,04	0,03	0,03	0,13	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,04	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,05	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,01	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,04	0,05	0,02	0,04	0,15	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,13	2,76	0,91	1,56	7,36	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,18	0,20	0,03	0,28	0,68	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,01	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	4 D AGRICULTURAL SOILS	8																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,43	3,20	1,08	1,96	8,67	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,03	0,06	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

(a) Including Handling;
(b) Including NH3 from Enteric Fermentation;
(c) Including PM sources;
(d) Excludes waste inciNRration for eNRrgy (this is included in 1 A 1);
(e) 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1994 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
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NFR sectors to be reported to CLRTAP		A = Allowable Aggregation	*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)										ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																	PAH								
			Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,01	0,06	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,05	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,01	0,06	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,04	0,03	0,03	0,13	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,05	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,01	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,04	0,05	0,02	0,04	0,15	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,06	2,68	0,88	1,50	7,12	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,19	0,20	0,03	0,30	0,71	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,37	3,12	1,05	1,93	8,47	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,04	0,08	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1995 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A= Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,01	0,07	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,05	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,01	0,07	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,03	0,03	0,03	0,12	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,01	0,02	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,05	0,07	0,02	0,04	0,18	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,07	2,70	0,90	1,49	7,16	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	0,17	0,03	0,24	0,59	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,36	3,12	1,07	1,86	8,42	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,04	0,08	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1996 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,05	0,02	0,01	0,10	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,05	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,02	0,05	0,01	0,01	0,08	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,03	0,03	0,03	0,12	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	[1]																		0,00				
1 A 3 e i	1 A 3 e i Pipeli NR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machi NR ry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,08	0,10	0,03	0,06	0,28	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,20	2,88	0,96	1,56	7,60	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	[1]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,13	0,15	0,03	0,19	0,50	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other Machi NR ry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 B 1	**1 B 1 Fugitive Emissions from Solid Fuels**	[1]																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	[1]																		0,00				
1 B 2 a	**1 B 2 a Oil**	[1]																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINERAL PRODUCTS (a)**	[1]																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 Limesto NR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	2 B CHEMICAL INDUSTRY	[a]																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	[a]	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	4 B MANURE MANAGEMENT (b)	[a]																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	4 D AGRICULTURAL SOILS	[a]																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,50	3,34	1,15	1,92	8,90	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,04	0,08	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1997 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																			*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)							OTHER (4)	
															PAH								
		A = Allowable Aggregation	Aldrin kg	Chlordane kg	Chlordecone kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	DIOX g I-Teq	benzo(a) pyrene Mg	benzo(b) fluoranthene Mg	benzo(k) fluoranthene Mg	Indeno pyrene (1,2,3-cd) Mg	Total 1-4 Mg	HCB kg	PCP kg	SCCP kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,05	0,02	0,01	0,09	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,05	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,02	0,06	0,01	0,01	0,09	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,03	0,03	0,03	0,12	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,01	0,02	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,08	0,11	0,04	0,06	0,29	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,19	2,86	0,95	1,55	7,54	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,13	0,14	0,03	0,17	0,46	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00			
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	NO	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
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	NO	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00			
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,48	3,31	1,14	1,88	8,81	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,04	0,08	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1998 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																			*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																PAH							
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,65	0,01	0,05	0,02	0,01	0,09	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,05	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,7	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,75	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,02	0,05	0,01	0,01	0,08	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A													0,2					0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,03	0,03	0,03	0,03	0,12	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,02	0,03	0,01	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,007	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,3	0,00	0,00	0,00	0,01	0,01	NA	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00			
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,08	0,11	0,04	0,06	0,29	NA	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21	1,94	2,54	0,85	1,38	6,71	NA	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,3	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,13	0,14	0,04	0,15	0,45	NA	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA	NR	NR
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	NO	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00			
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO	NO	NO	NO	0,00	NO	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00			
1 B 2 a	**1 B 2 a Oil**	A																		0,00			
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00			
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,77	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,5	NA	NA	NA	NA	0,00	NA	NR	NR
2 B	2 B CHEMICAL INDUSTRY	A																		0,00			
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	NO	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
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	NO	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,25	NA	NA	NA	NA	0,00	NA	NR	NR
4 B	4 B MANURE MANAGEMENT (b)	A																		0,00			
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,1	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,11	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	28,96	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	92,83	2,24	2,99	1,04	1,68	7,96	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,03	0,01	0,04	0,09	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1999 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A= Allowable Aggregation	Aldrin kg	Chlordane kg	Chlordecone kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	DIOX g I-Teq	benzo(a) pyrene Mg	benzo(b) fluoranthene Mg	benzo(k) fluoranthene Mg	Indeno pyrene (1,2,3-cd) Mg	Total 1-4 Mg	HCB kg	PCP kg	SCCP kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,02	0,01	0,08	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,04	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,02	0,07	0,01	0,00	0,10	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,03	0,03	0,03	0,11	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,01	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,11	0,14	0,05	0,08	0,38	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,02	2,64	0,88	1,43	6,96	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,11	0,13	0,04	0,12	0,40	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	^																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	^	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	^																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	^																		0,00				

4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,33	3,12	1,08	1,72	8,25	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,04	0,08	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluoranteNR, benzo(k)fluoranteNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2000 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	fluoranthene	benzo(k)	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,04	0,01	0,01	0,07	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,05	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,02	0,07	0,01	0,00	0,10	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A																		0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,03	0,03	0,03	0,03	0,11	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,03	0,00	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,01	NA	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00			
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO	NO	0,00	NO	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,13	0,17	0,06	0,09	0,46	NA	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,38	3,12	1,04	1,68	8,23	NA	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,12	0,13	0,03	0,16	0,44	NA	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,03	NA	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA	NR	NR
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	NO	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00			
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00			
1 B 2 a	**1 B 2 a Oil**	A																		0,00			
1 B 2 a i	1 B 2 a i Exploration Production, Transport	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00			
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00			
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	NO	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
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	NO	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00			
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
7	7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	2,72	3,63	1,25	2,03	9,62	NA		0,00	0,00

Memo Items																									
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,03	0,07	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

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(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
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Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2001 (as YYYY, year of Emmissions)

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FootNAtes 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.
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NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
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																	PAH							
		A = Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,7	0,01	0,04	0,02	0,01	0,08	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,04	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,46	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,4	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,004	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,07	0,02	0,08	0,01	0,00	0,11	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A													0,2					0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,03	0,03	0,03	0,03	0,11	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,02	0,03	0,00	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,007	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,3	0,00	0,00	0,00	0,00	0,01	NA	NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00			
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	0,20	0,07	0,11	0,54	NA	NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18,85	2,62	3,43	1,14	1,85	9,04	NA	NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,3	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,12	0,14	0,03	0,17	0,46	NA	NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,02	NA	NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA	NR	NR
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	NO	NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00			
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00			
1 B 2 a	**1 B 2 a Oil**	A																		0,00			
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00			
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,8	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR

2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,041	NA	NA	NA	NA	0,00	NA	NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	NA	NA	NA	NA	0,00	NA	NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00			
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	NO	NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
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	NO	NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,25	NA	NA	NA	NA	0,00	NA	NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00			
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
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	NO	0,00	NO	NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO	NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00			

4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,15	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,002	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	17,7	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78	2,99	3,98	1,35	2,22	10,54	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,01	0,02	0,01	0,03	0,06	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2002 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																			*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)							OTHER (4)	
																PAH							
		A = Allwaste Aggregation	Aldrin kg	Chlordane kg	Chlordecone kg	Dieldrin kg	Endrin kg	Heptachlor kg	Hexabromo-biphenyl kg	Mirex kg	Toxaphene kg	HCH kg	DDT kg	PCB kg	DIOX g I-Teq	benzo(a) pyrene Mg	benzo(b) fluoranthene Mg	benzo(k) fluoranthene Mg	Indeno pyrene (1,2,3-cd) Mg	Total 1-4 Mg	HCB kg	PCP kg	SCCP kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,7	0,01	0,04	0,02	0,01	0,08	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,04	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,46	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,4	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,004	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,07	0,02	0,08	0,00	0,00	0,11	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A													0,2					0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,03	0,03	0,03	0,03	0,11	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,01	0,01	0,01	0,01	0,05	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,02	0,03	0,00	0,05	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,007	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,3	0,00	0,00	0,00	0,01	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	0,22	0,07	0,12	0,57	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18,85	2,54	3,32	1,11	1,79	8,75	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,3	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,10	0,11	0,03	0,13	0,37	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,02	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,00	0,01	0,02	NA		NR	NR
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	0,00	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,8	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,041	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**																			0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,25	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**																			0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	4 D AGRICULTURAL SOILS	8																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,15	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,002	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	17,7	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78	2,89	3,87	1,32	2,13	10,21	NA		0,00	0,00

Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,01	0,03	0,06	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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: 16.03.2005 (as DD.MM.YYYY)
YEAR: 2003 (as YYYY, year of Emmissions)

These five yellow liNRs will NAt be read by UNRCE! These liNRs can be modified freely for your own reference purposes.
FootNAtes 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 oNR of the following codes (capitals, NA dots in between, see EB.AIR/GE.1/2002/2): NA , NA , NR , IE , C
FootNAtes or any other information entered into this table will NAt be taken into account.

NFR sectors to be reported to CLRTAP			*Yearly minimum reporting*																				*Additional reporting*	
			ANNRX I (1)									ANNRX II (2)			ANNRX III (3)								OTHER (4)	
																PAH								
		A= Allowable Aggregation	Aldrin	Chlordane	Chlordecone	Dieldrin	Endrin	Heptachlor	Hexabromo-biphenyl	Mirex	Toxaphene	HCH	DDT	PCB	DIOX	benzo(a) pyrene	benzo(b) fluoranthene	benzo(k) fluoranthene	Indeno pyrene (1,2,3-cd)	Total 1-4	HCB	PCP	SCCP
			kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	g I-Teq	Mg	Mg	Mg	Mg	Mg	kg	kg	kg
1 A 1 a	1 A 1 a Public Electricity and Heat Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4,7	0,01	0,03	0,01	0,01	0,06	NA	NR	NR
1 A 1 b	1 A 1 b Petroleum refining		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 1 c	1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 2	**1 A 2 Manufacturing Industries and Construction**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,02	0,01	0,04	NA	NR	NR
1 A 2 a	1 A 2 a Iron and Steel		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,46	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 b	1 A 2 b NAn-ferrous Metals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,4	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 c	1 A 2 c Chemicals		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,004	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 d	1 A 2 d Pulp, Paper and Print		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 e	1 A 2 e Food Processing, Beverages & Tobacco		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 2 f	1 A 2 f Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,07	0,02	0,08	0,00	0,00	0,11	NA	NR	NR
1 A 3 a ii (i)	1 A 3 a ii Civil Aviation (Domestic, LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 a ii (ii)	1 A 3 a ii Civil Aviation (Domestic, Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b	**1 A 3 b Road Transportation**	A													0,2					0,00			
1 A 3 b i	1 A 3 b i R.T., Passenger cars		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,03	0,03	0,03	0,03	0,11	NA	NR	NR
1 A 3 b ii	1 A 3 b ii R.T., Light duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,02	0,01	0,01	0,01	0,06	NA	NR	NR
1 A 3 b iii	1 A 3 b iii R.T., Heavy duty vehicles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,02	0,03	0,01	0,06	NA	NR	NR
1 A 3 b iv	1 A 3 b iv R.T., Mopeds & Motorcycles		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	0,00	0,00	0,00	0,00	0,00	NA	NR	NR
1 A 3 b v	1 A 3 b v R.T., GasoliNR evaporation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	IE	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vi	1 A 3 b vi R.T., Automobile tyre and brake wear		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 b vii	1 A 3 b vii R.T., Automobile road abrasion		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA	NR	NR
1 A 3 c	1 A 3 c Railways		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,007	0,00	0,00	0,00	0,00	0,00	NA	NR	NR

1 A 3 d ii	1 A 3 d ii National Navigation		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,3	0,00	0,00	0,00	0,01	0,01	NA		NR	NR
1 A 3 e	**1 A 3 e Other (Please specify in a covering NAte)**	A																		0,00				
1 A 3 e i	1 A 3 e i PipeliNR compressors		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 3 e ii	1 A 3 e ii Other mobile sources and machiNRry		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	0,00	NO		NR	NR
1 A 4 a	1 A 4 a Commercial / Institutional		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	0,22	0,07	0,12	0,57	NA		NR	NR
1 A 4 b	**1 A 4 b Residential**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 b i	1 A 4 b i Residential plants		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	18,85	2,57	3,37	1,12	1,82	8,89	NA		NR	NR
1 A 4 b ii	1 A 4 b ii Household and gardening (mobile)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,3	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 A 4 c	**1 A 4 c Agriculture / Forestry / Fishing**	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 A 4 c i	1 A 4 c i Stationary		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,14	0,15	0,03	0,21	0,53	NA		NR	NR
1 A 4 c ii	1 A 4 c ii Off-road Vehicles and Other MachiNRry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,01	0,01	0,00	0,02	NA		NR	NR
1A 4 c iii	1A 4 c iii National Fishing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	0,00	NO		NR	NR
1 A 5 b	1 A 5 b Other, Mobile (Including military)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1B1	**1B1 Fugitive Emissions from Solid Fuels**	A																		0,00				
1 B 1 a	1 B 1 a Coal Mining and Handling		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
1 B 1 c	1 B 1 c Other (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
1 B 2	**1 B 2 Oil and natural gas**	A																		0,00				
1 B 2 a	**1 B 2 a Oil**	A																		0,00				
1 B 2 a i	1 B 2 a i Exploration Production, Transport		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a iv	1 B 2 a iv Refining / Storage		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a v	1 B 2 a v Distribution of oil products		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 a vi	1 B 2 a vi Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 b	1 B 2 b Natural gas		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
1 B 2 c	1 B 2 c Venting and flaring		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
2 A	**2 A MINRRAL PRODUCTS (a)**	A																		0,00				
2 A 1	2 A 1 Cement Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,8	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 2	2 A 2 Lime Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 3	2 A 3 LimestoNR and Dolomite Use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 4	2 A 4 Soda Ash Production and use		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

2 A 5	2 A 5 Asphalt Roofing		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 6	2 A 6 Road Paving with Asphalt		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,041	NA	NA	NA	NA	0,00	NA		NR	NR
2 A 7	2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,16	NA	NA	NA	NA	0,00	NA		NR	NR
2 B	**2 B CHEMICAL INDUSTRY**	A																		0,00				
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	NO		NR	NR
2 B 2	2 B 2 Nitric Acid Production		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO		NR	NR
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	NO		NR	NR
2 B 5	2 B 5 Other (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 C	2 C METAL PRODUCTION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D	2 D OTHER PRODUCTION (a)	A	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 1	2 D 1 Pulp and Paper		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 D 2	2 D 2 Food and Drink		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
2 G	2 G OTHER (Please specify in a covering NAte)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	0,00	NO		NR	NR
3 A	3 A PAINT APPLICATION		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 B	3 B DEGREASING AND DRY CLEANING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 C	3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
3 D	3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,25	NA	NA	NA	NA	0,00	NA		NR	NR
4 B	**4 B MANURE MANAGEMENT (b)**	A																		0,00				
4 B 1	4 B 1 Cattle		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 a	4 B 1 a Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 1 b	4 B 1 b NAn-Dairy		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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		NR	NR
4 B 3	4 B 3 Sheep		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 4	4 B 4 Goats		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 B 6	4 B 6 Horses		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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		NR	NR
4 B 8	4 B 8 SwiNR		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 9	4 B 9 Poultry		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
4 B 13	4 B 13 Other		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR

4 C	4 C RICE CULTIVATION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
4 D	**4 D AGRICULTURAL SOILS**	A																		0,00				
4 D 1	4 D 1 Direct Soil Emission		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
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	NO	0,00	NO		NR	NR
4 G	4 G OTHER (c)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
5 B	5 B FOREST AND GRASSLAND CONVERSION		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NR	NR
6 A	6 A SOLID WASTE DISPOSAL ON LAND		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,15	NA	NA	NA	NA	0,00	NA		NR	NR
6 B	6 B WASTEWATER HANDLING		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,002	NA	NA	NA	NA	0,00	NA		NR	NR
6 C	6 C WASTE INCINRRATION (d)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	17,7	NO	NO	NO	NO	0,00	NO		NR	NR
6 D	6 D OTHER WASTE (e)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	NA		NR	NR
	7 7 OTHER		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	10,25	NO	NO	NO	NO	0,00	NO		NR	NR
	National Total		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78,00	2,97	3,95	1,34	2,22	10,47	NA		0,00	0,00
Memo Items																								
1 a 3 a i (i)	International Aviation (LTO)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 a i (ii)	International Aviation (Cruise)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,00	0,00	0,00	0,00	NA		NR	NR
1 a 3 d i	International MariNR (b)		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0,00	0,02	0,01	0,03	0,06	NA		NR	NR
5 E	5 E Other		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	0,00	NO		NO	NO
X	X (11 08 VolcaNAes)		NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NA	NO		NO	NO

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

NAtes 1: POPs should cover the timespan from 1990 to the latest year.
(1): The POPs listed in anNRx I to the Protocol on POPs are substances scheduled for elimination; DDT and PCBs are also listed in anNRx I;
(2): The POPs listed in anNRx II to the Protocol on POPs are substances scheduled for restrictions on use;
(3): The POPs listed in anNRx 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)pyreNR, benzo(b)fluorantheNR, benzo(k)fluorantheNR and indeNA(1,2,3-cd)pyreNR. HCB is also included in anNRx I to the Protocol as a substance for elimination.
(4): See article 8 of the Protocol (Research, development and monitoring; reporting voluntary).
NAte 2: The A=Allowable Aggregation illustrates the level of aggregation that can be used if more detailed information is NAt 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)

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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.

	UNIT	Current legislation projections [a)]			Current reduction plans		
Pollutant:		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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1990 (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	236440	IE	14557	17575	NO	10004	2250	NO	8230	NE		NO	NE
NFR 1A1b,c	Conversion	NO	IE	NO	9484,04	NO	1309,2	13978,11	NO	6,8	NE			
NFR 1A2a-f	Industry	15038,49	IE	28,03	22922,78	NO	21090,94	13126,83	NO	5783,74	NE			
NFR 1A4a,bi,ci	Residential/ Commercial	3153,53	IE	NO	19688,36	NO	3038,64	53977,59	NO	17529,38	NE			
NFR 1A3aii,b,c,dii,eii + +1A4bii,cii,ciii + 1A5b	Transport	NO	NO	NO	IE	IE	3559,81	156927,91	NO	IE	NE			
	Non-energy use [a]	NE			NE	NE	NE	NE	NE	NE				
	TOTAL	254632,02	IE	14585,03	69670,18	IE	39002,59	240260,44	NO	31549,92	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, Renewable: 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1995 (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	254813,75	IE	21572,33	44377,63	IE	13064,36	21059,43	NO	12512,77	NE		NO	NE
NFR 1A1b,c	Conversion	NO	IE	NO	12910,17	IE	2333,79	20886,23	NO	51,78	NE			
NFR 1A2a-f	Industry	14515,68	IE	28,52	34775,97	IE	19042,32	13548,59	NO	4813,52	NE			
NFR 1A4a,bi,ci	Residential/ Commercial	2223,43	IE	NO	31563,08	IE	3653,2	49177,55	NO	18643,98	NE			
NFR 1A3aii,b,c,dii,eii + +1A4bii,cii,ciii + 1A5b	Transport	NO	NO	NO	IE	IE	1572,93	179921,97	NO	IE	NE			
	Non-energy use [a)]	NE			NE	NE	NE	NE	NE	NE				
	TOTAL	271552,86	IE	21600,85	123626,85	IE	39666,6	284593,77	NO	36022,05			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, Renewable: 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: 14.02.2005 (as DD.MM.YYYY)
YEAR: 2000 (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	153175,67	IE	29710,43	76291,46	IE	5478,07	35661,65	NO	15868,26	NE		NO	NE
NFR 1A1b,c	Conversion	NO	IE	NO	25370,07	IE	1322,99	15556,27	NO	32,51	NE			
NFR 1A2a-f	Industry	11620,78	IE	545,39	41508,23	IE	15836,43	13159,68	NO	4940,89	NE			
NFR 1A4a,bi,ci	Residential/ Commercial	1098,67	IE		34618,61	IE	2340,77	34787,96	NO	19362,75	NE			
NFR 1A3aii,b,c,dii,eii + +1A4bii,cii,ciii + 1A5b	Transport	NO	NO	NO	IE	IE	1508,81	190534,83	NO	IE	NE			
	Non-energy use [a)]	NE			NE	NE	NE	NE	NE	NE				
	TOTAL	165895,12	IE	30255,82	177788,37	IE	26487,07	289700,39	NO	40204,41	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, Renewable: 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: 2010 (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	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,dii,eii + +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												150110		

[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, Renewable: 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 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	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	23268,60085	0	7427,920767	1603,384352			
NFR 1A4a,bi,ci	Residential/ Commercial	1584	0	1146	48638	0	2348	56886	0	20852	4865			
NFR 1A3aii,b,c,dii,eii + +1A4bii,cii,ciii + 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, Renewable:
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 Emissions)

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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	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	23913,60085	0	7556,920767	1638,384352			
NFR 1A4a,bi,ci	Residential/ Commercial	1611	0	1137	49109	0	2359	56245	0	20920	4872			
NFR 1A3aii,b,c,dii,eii + +1A4bii,cii,ciii + 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, Renewable:
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 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)

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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	
Final consumption			
NFR 1A2a-f	Industry	41327	7660
NFR 1A4a,bi,ci	Residential/C	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)

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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:		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	
Final consumption			
NFR 1A2a-f	Industry	45233	8072
NFR 1A4a,bi,ci	Residential/C	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)

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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:		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	
Final consumption			
NFR 1A2a-f	Industry	46747	8203
NFR 1A4a,bi,ci	Residential/C	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.

TABLE IV 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 14.02.2005 (as DD.MM.YYYY)
YEAR: 1990 (as YYYY, year of Emissions)

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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	63794,6	12,34	5801,35	NA	NA	NA	NA
NFR 1A3bii	Light Duty Vehicles	2854,07	NA	20261	NA	NA	NA	NA
NFR 1A3biii	Heavy Duty Vehicles	48,22	NA	33884,9	NA	NA	NA	NA
NFR 1A3biv	Mopeds and Motorcycles	618,26	NA	NA	NA	NA	NA	NA
NFR 1A3c	Railways	0	NA	4010,01	NA	NA	NA	NA
NFR 1A3eii + 1A4bii,cii + 1A5b	Other Off-road	1773,96	NA	17443,7	NA	NA	NA	NA
NFR 1A3aii	Civil Aviation	113,59	NA	NA	NA	NA	NA	3255,56
NFR 1A3dii + 1A4ciii	National Shipping	371,24	1,79	3327,36	NA	NA	3559,81	0,45
Aggregated categories								
NFR 1A3bi-iv	Road Transportation	67315,1	12,34	59947,3	NA	NA		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	1773,96	NA	21453,7	NA	NA		
NFR 1A3aii	Civil Aviation	113,59				NA		3255,56
NFR 1A3dii + 1A4ciii	National Shipping	371,237	1,79	3327,36		NA	3559,81	0,45
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 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY:	DK	(as ISO2 code)
DATE:	14.02.2005	(as DD.MM.YYYY)
YEAR:	1995	(as YYYY, year of Emissions)

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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	76897,7	12,42	6540,6	NA	NA	NA	NA
NFR 1A3bii	Light Duty Vehicles	3293,15	NA	21212,45	NA	NA	NA	NA
NFR 1A3biii	Heavy Duty Vehicles	54,4	NA	36260,22	NA	NA	NA	NA
NFR 1A3biv	Mopeds and Motorcycles	714,03	NA	NA	NA	NA	NA	NA
NFR 1A3c	Railways	0	NA	4093,26	NA	NA	NA	NA
NFR 1A3eii + 1A4bii,cii + 1A5b	Other Off-road	1723,83	NA	18442,56	NA	NA	NA	NA
NFR 1A3aii	Civil Aviation	132,42	NA	NA	NA	NA	NA	2624,63
NFR 1A3dii + 1A4ciii	National Shipping	686,40	2,30	6772,78	NA	NA	1572,93	0,77
Aggregated categories								
NFR 1A3bi-iv	Road Transportation	80959,28	12,42	64013,27	NA	NA		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	1723,83	NA	22535,82	NA	NA		
NFR 1A3aii	Civil Aviation	132,42				NA		2624,63
NFR 1A3dii + 1A4ciii	National Shipping	686,4043	2,30	6772,7784		NA	1572,93	0,77
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 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY:	DK	(as ISO2 code)
DATE:	14.02.2005	(as DD.MM.YYYY)
YEAR:	2000	(as YYYY, year of Emissions)

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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
NFR 1A3bi	Passenger Cars	79324,39	1,05	9270,25	NA	NA	NA	NA
NFR 1A3bii	Light Duty Vehicles	3439,59	NA	21842,42	NA	NA	NA	NA
NFR 1A3biii	Heavy Duty Vehicles	43,89	NA	38083,7	NA	NA	NA	NA
NFR 1A3biv	Mopeds and Motorcycles	868,07	NA	NA	NA	NA	NA	NA
NFR 1A3c	Railways	0	NA	3078,73	NA	NA	NA	NA
NFR 1A3eii + 1A4bii,cii + 1A5b	Other Off-road	1672,73	NA	16367,47	NA	NA	NA	NA
NFR 1A3aii	Civil Aviation	2036,89	NA	NA	NA	NA	NA	101,4
NFR 1A3dii + 1A4ciii	National Shipping	1001,57	0,14	4269,56	NA	NA	1508,81	0,63
Aggregated categories								
NFR 1A3bi-iv	Road Transportation	83675,94	1,05	69196,37	NA	NA		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	1672,73	NA	19446,2	NA	NA		
NFR 1A3aii	Civil Aviation	2036,89				NA		101,4
NFR 1A3dii + 1A4ciii	National Shipping	1001,5712	0,14	4269,562		NA	1508,81	0,63
	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 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
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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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	87562,2547	0	11462,117	0	0		
NFR 1A3bii	Light Duty Vehicles	8531,2922	0	30170,5214	0	0		
NFR 1A3biii	Heavy Duty Vehicles	0	0	41863,2285	0	0		
NFR 1A3biv	Mopeds and Motorcycles	0	0		0	0		
NFR 1A3c	Railways	0	0	2727,70643	0	0		
NFR 1A3eii + 1A4bii,cii + 1A5b	Other Off-road	IE	IE	IE	IE	0		
NFR 1A3aii	Civil Aviation	0				0		2897,72241
NFR 1A3dii + 1A4ciii	National Shipping	0		3016,677		0	0	
Aggregated categories								
NFR 1A3bi-iv	Road Transportation	96093,5469	0	83495,8668	0	0		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	0	0	2727,70643	0	0		
NFR 1A3aii	Civil Aviation	0				0		2897,72241
NFR 1A3dii + 1A4ciii	National Shipping	0		3016,677		0	0	
TOTAL		96093,5469	0	89240,2503	0	0	0	2897,72241

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 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
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 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	88146,1666	0	11567,0927	0	0		
NFR 1A3bii	Light Duty Vehicles	9056,54072	0	32028,0385	0	0		
NFR 1A3biii	Heavy Duty Vehicles	0	0	43732,3151	0	0		
NFR 1A3biv	Mopeds and Motorcycles	0	0		0	0		
NFR 1A3c	Railways	0	0	2727,70643	0	0		
NFR 1A3eii + 1A4bii,cii + 1A5b	Other Off-road	IE	IE	IE	IE	0		
NFR 1A3aii	Civil Aviation	0				0		3331,20232
NFR 1A3dii + 1A4ciii	National Shipping	0		3016,677		0	0	
Aggregated categories								
NFR 1A3bi-iv	Road Transportation	97202,7073	0	87327,4462	0	0		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	0	0	2727,70643	0	0		
NFR 1A3aii	Civil Aviation	0				0		3331,20232
NFR 1A3dii + 1A4ciii	National Shipping	0		3016,677		0	0	
TOTAL		97202,7073	0	93071,8297	0	0	0	3331,20232

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 2D: Five-yearly, Minimum reporting of energy consumption data for transport sector
Version 2002-1

COUNTRY: DK (as ISO2 code)
DATE: 07.02.2003 (as DD.MM.YYYY)
YEAR: 2020 (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.
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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:		Petrol	LPG	Diesel	CNG	Hydrogen	Heavy fuel oil	Kerosene
UNIT:		TJ	TJ	TJ	TJ	TJ	TJ	TJ
NFR 1A3bi	Passenger Cars	88233,6204	0	11588,8046	0	0		
NFR 1A3bii	Light Duty Vehicles	9269,28807	0	32780,4097	0	0		
NFR 1A3biii	Heavy Duty Vehicles	0	0	44479,9497	0	0		
NFR 1A3biv	Mopeds and Motorcycles	0	0		0	0		
NFR 1A3c	Railways	0	0	2727,70643	0	0		
NFR 1A3eii + 1A4bii,cii + 1A5b	Other Off-road	IE	IE	IE	IE	0		
NFR 1A3aii	Civil Aviation	0				0		3516,66035
NFR 1A3dii + 1A4ciii	National Shipping	0		3016,677		0	0	
Aggregated categories								
NFR 1A3bi-iv	Road Transportation	97502,9085	0	88849,164	0	0		
NFR 1A3c,eii + 1A4bii,cii + 1A5b	Off-road	0	0	2727,70643	0	0		
NFR 1A3aii	Civil Aviation	0				0		3516,66035
NFR 1A3dii + 1A4ciii	National Shipping	0		3016,677		0	0	
TOTAL		97502,9085	0	94593,5474	0	0	0	3516,66035

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 2E: Five-yearly, Minimum reporting of agricultural activity data
Version 2002-1

COUNTRY:	DK	(as ISO2 code)
DATE:	21.04.2005	(as DD.MM.YYYY)
YEAR:	1990	(as YYYY, year of Emmissions)

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(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	461	
NFR 4B1a	Dairy Cattle; Straw-based system	292	
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	363	
NFR 4B1b	Non-Dairy Cattle; Straw-based system	1123	
NFR 4B3	Sheep	92	
NFR 4B4	Goats	8	
NFR 4B6	Horses	135	
NFR 4B7	Mules and Asses	NO	
NFR 4B8	Swine; Slurry-based system	7018	
NFR 4B8	Swine; Straw-based system	2480	
NFR 4B9	Laying Hens	5696	
NFR 4B9	Broilers	9802	
NFR 4B9	Turkeys	213	
NFR 4B9	Other Poultry	538	
NFR 4B13	Other Animals	2264	
NFR 4Di	N-fertilizer use – Urea		9
NFR 4Di	N-fertilizer use - other N-fertilizers		391
Aggregated categories			
NFR 4B1a	Dairy Cattle	753	
NFR 4B1b	Non-Dairy Cattle	1486	
NFR 4B3,4	Sheep and Goats	100	
NFR	Horses, Mules and Asses, Other	2399	
NFR 4B8	Swine	9497	
NFR 4B9	Poultry	16249	
NFR 4Di	N-fertilizer use		400

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 2E: Five-yearly, Minimum reporting of agricultural activity data
Version 2002-1

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YEAR:	1995	(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	446	
NFR 4B1a	Dairy Cattle; Straw-based system	256	
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	339	
NFR 4B1b	Non-Dairy Cattle; Straw-based system	1049	
NFR 4B3	Sheep	81	
NFR 4B4	Goats	9	
NFR 4B6	Horses	143	
NFR 4B7	Mules and Asses	NO	
NFR 4B8	Swine; Slurry-based system	9166	
NFR 4B8	Swine; Straw-based system	1918	
NFR 4B9	Laying Hens	6088	
NFR 4B9	Broilers	12585	
NFR 4B9	Turkeys	449	
NFR 4B9	Other Poultry	497	
NFR 4B13	Other Animals	1850	
NFR 4Di	N-fertilizer use – Urea		10
NFR 4Di	N-fertilizer use - other N-fertilizers		306
Aggregated categories			
NFR 4B1a	Dairy Cattle	702	
NFR 4B1b	Non-Dairy Cattle	1388	
NFR 4B3,4	Sheep and Goats	90	
NFR 4B6,7,13	Horses, Mules and Asses, Other	1992	
NFR 4B8	Swine	11084	
NFR 4B9	Poultry	19619	
NFR 4Di	N-fertilizer use		316

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 2E: Five-yearly, Minimum reporting of agricultural activity data
Version 2002-1

COUNTRY:	DK	(as ISO2 code)
DATE:	21.04.2005	(as DD.MM.YYYY)
YEAR:	2000	(as YYYY, year of Emmissions)

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SOURCE/UNIT :		head	N
		1000	Gg
NFR 4B1a	Dairy Cattle; Slurry-based system	451	
NFR 4B1a	Dairy Cattle; Straw-based system	184	
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	875	
NFR 4B1b	Non-Dairy Cattle; Straw-based system	357	
NFR 4B3	Sheep	81	
NFR 4B4	Goats	10	
NFR 4B6	Horses	150	
NFR 4B7	Mules and Asses	NO	
NFR 4B8	Swine; Slurry-based system	10327	
NFR 4B8	Swine; Straw-based system	1595	
NFR 4B9	Laying Hens	4935	
NFR 4B9	Broilers	16047	
NFR 4B9	Turkeys	546	
NFR 4B9	Other Poultry	303	
NFR 4B13	Other Animals	2199	
NFR 4Di	N-fertilizer use – Urea		1
NFR 4Di	N-fertilizer use - other N-fertilizers		250
Aggregated categories			
NFR 4B1a	Dairy Cattle	636	
NFR 4B1b	Non-Dairy Cattle	1232	
NFR 4B3,4	Sheep and Goats	91	
NFR 4B6,7,13	Horses, Mules and Asses, Other	2349	
NFR 4B8	Swine	11922	
NFR 4B9	Poultry	21830	
NFR 4Di	N-fertilizer use		251

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 2E: Five-yearly, Minimum reporting of agricultural activity data
Version 2002-1

COUNTRY:	DK	(as ISO2 code)
DATE:	14.02.2003	(as DD.MM.YYYY)
YEAR:	2010	(as YYYY, year of Emissions)

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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	559073	
NFR 4B1a	Dairy Cattle; Straw-based system		
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	1151184	
NFR 4B1b	Non-Dairy Cattle; Straw-based system		
NFR 4B3	Sheep	81286	
NFR 4B4	Goats	15000	
NFR 4B6	Horses	165000	
NFR 4B7	Mules and Asses	0	
NFR 4B8	Swine; Slurry-based system	11502114	
NFR 4B8	Swine; Straw-based system		
NFR 4B9	Laying Hens	4052922	
NFR 4B9	Broilers	17857757	
NFR 4B9	Turkeys	ie	
NFR 4B9	Other Poultry	790328	
NFR 4B13	Other Animals	2198898	
NFR 4Di	N-fertilizer use – Urea		1
NFR 4Di	N-fertilizer use - other N-fertilizers		219,2
Aggregated categories			
NFR 4B1a	Dairy Cattle	559073	
NFR 4B1b	Non-Dairy Cattle	1151184	
NFR 4B3,4	Sheep and Goats	96286	
NFR 4B6,7,13	Horses, Mules and Asses, Other	2363898	
NFR 4B8	Swine	11502114	
NFR 4B9	Poultry	22701007	
NFR 4Di	N-fertilizer use		220,2

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 2E: Five-yearly, Minimum reporting of agricultural activity data
Version 2002-1

COUNTRY:	DK	(as ISO2 code)
DATE:	21.04.2005	(as DD.MM.YYYY)
YEAR:	2010	(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	559	
NFR 4B1a	Dairy Cattle; Straw-based system	0	
NFR 4B1b	Non-Dairy Cattle; Slurry-based system	1151	
NFR 4B1b	Non-Dairy Cattle; Straw-based system	0	
NFR 4B3	Sheep	81	
NFR 4B4	Goats	15	
NFR 4B6	Horses	165	
NFR 4B7	Mules and Asses	NO	
NFR 4B8	Swine; Slurry-based system	11502	
NFR 4B8	Swine; Straw-based system	0	
NFR 4B9	Laying Hens	4053	
NFR 4B9	Broilers	17858	
NFR 4B9	Turkeys	IE	
NFR 4B9	Other Poultry	790	
NFR 4B13	Other Animals	2199	
NFR 4Di	N-fertilizer use – Urea		1
NFR 4Di	N-fertilizer use - other N-fertilizers		219
Aggregated categories			
NFR 4B1a	Dairy Cattle	559	
NFR 4B1b	Non-Dairy Cattle	1151	
NFR 4B3,4	Sheep and Goats	96	
NFR 4B6,7,13	Horses, Mules and Asses, Other	2364	
NFR 4B8	Swine	11502	
NFR 4B9	Poultry	22701	
NFR 4Di	N-fertilizer use		220

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.

Annex 2A, 2B and 2C

Contents

Annex 2A

Stationary combustion plants

This annex is a sector report for stationary combustion plants that includes more detailed documentation than included in the main report. Further it includes both greenhouse gases and pollutants reported to the LRTAP Convention.

Preface

The Danish National Environmental Research Institute (NERI) prepares the Danish atmospheric emission inventories and reports the results on an annual basis to the Climate Convention and to the UNECE Convention on Long-Range Transboundary Air Pollution. This report forms part of the documentation for the inventories and covers emissions from stationary combustion plants. The results of inventories up to 2003 are included. The report updates a similar report published in 2004.

Last year the report was externally reviewed by Jan Erik Johnsson from the Technical University of Denmark. The changes of *emission factors* suggested by Jan Erik Johnsson have been included in the 2005 reporting, because the review was performed after the 2004 reporting to the Climate Convention and the LRTAP Convention.

This report (Annex 2A) has not been externally reviewed yet. A reviewed version of the report will be published later this year.

Sammendrag

Opgørelser over de samlede danske luftemissioner rapporteres årligt til Klimakonventionen (*UN Framework Convention on Climate Change, UNFCCC*) og til UNECE Konventionen om langtransporteret grænseoverskridende luftforurening (*UNECE Convention on Long-Range Transboundary Air Pollution* der forkortes LRTAP Convention). Endvidere rapporteres drivhusgasemissionen til EU fordi EU – såvel som de enkelte medlemslande – har ratificeret klimakonventionen. De danske emissioner opgøres og rapporteres af Danmarks Miljøundersøgelser (DMU). Emissionsopgørelserne omfatter følgende stoffer af relevans for stationær forbrænding: CO_2, CH_4, N_2O, SO_2, NO_X, NMVOC, CO, partikler, tungmetaller, dioxin og PAH. Foruden de årlige opgørelser over total emission rapporteres også sektoropdelt emission og usikkerhed på opgørelserne. Hvert femte år rapporteres endvidere geografisk fordeling af emissionerne, fremskrivning af emissionerne samt de aktivitetsdata – fx brændselsforbrug – der ligger til grund for opgørelserne.

Emissionsopgørelserne for stationære forbrændingsanlæg (ikke mobile kilder) er baseret på den danske energistatistik og på et sæt af emissionsfaktorer for forskellige sektorer, teknologier og brændsler. Anlægsspecifikke emissionsdata for store anlæg, som fx kraftværker, indarbejdes i opgørelserne. Denne rapport giver detaljeret baggrundsinformation om den anvendte metode samt referencer for de data der ligger til grund for opgørelsen – energistatistikken og emissionsfaktorerne.

Emissionsfaktorerne stammer enten fra danske referencer eller fra internationale guidebøger (EMEP/Corinair 2004 og IPCC 1996) udarbejdet til brug for denne type emissionsopgørelser. De danske referencer omfatter miljølovgivning, danske rapporter samt middelværdier baseret på anlægsspecifikke emissionsdata fra et betydeligt antal større værker. Anlægsspecifikke emissionsfaktorer oplyses af anlægsejere, bl.a. i grønne regnskaber.

I emissionsopgørelsen for 2003 er 70 stationære forbrændingsanlæg defineret som punktkilder. Punktkilderne omfatter: kraftværker, decentrale kraftvarmeværker, affaldsforbrændingsanlæg, industrielle forbrændingsanlæg samt raffinaderier. Brændselsforbruget for disse anlæg svarer til 67% af det samlede brændselsforbrug for alle stationære forbrændingsanlæg.

Variationen i årlig import/eksport af el medfører at det totale danske brændselsforbrug varierer. Siden 1990 er brændselsforbruget steget med 25%, mens forbruget af fossile brændsler er steget med 18%. Forbruget af kul er faldet, mens forbruget af naturgas og af biobrændsler er steget.

For følgende stoffer udgør emissionen fra stationær forbrænding over 50% af den samlede danske emission: SO_2, CO_2, tungmetaller (dog ikke Cu), $PM_{2.5}$ og PAH. Endvidere udgør emissionen over 10% for NO_X, CO, NMVOC, TSP, PM_{10} og Cu. Stationær forbrænding bidrager med mindre end 10% af den samlede danske emission af CH_4 og N_2O.

Indenfor de stationære forbrændingsanlæg er kraftværker og decentrale kraftvarmeværker den betydeligste emissionskilde for SO_2, CO_2, NO_X, og tungmetaller. Gasmotorer installeret på decentrale kraftvarmeværker er den største

CH_4 emissionskilde. Endvidere har gasmotorer en betydelig emission af NMVOC.

Emissioner fra kedler, brændeovne mv. i forbindelse med beboelse er den betydeligste emissionskilde for CO, NMVOC, partikler og PAH. Det er især forbrænding af træ, som bidrager til disse emissioner.

I rapporten vises tidsserier for emissioner fra stationær forbrænding.

Udviklingen i emissionen af drivhusgasser følger udviklingen i CO_2-emissionen ganske tæt. Både CO_2-emissionen og den samlede drivhusgasemission fra stationær forbrænding er højere i 2003 end i basisåret 1990 – CO_2 er 10% højere og drivhusgasemissionen er 11% højere. Emissionerne fluktuerer dog betydeligt pga. variationerne i import/eksport af el samt varierende udetemperatur.

CH_4-emissionen fra stationær forbrænding er steget med en faktor 4,3 siden 1990. Denne stigning skyldes, at der i perioden er installeret et betydeligt antal gasmotorer på decentrale kraftvarmeværker.

SO_2-emissionen fra stationær forbrænding er faldet med 94% siden 1980 og 78% siden 1995. Den store reduktion skyldes primært, at emissionen fra el- og fjernvarmeproducerende anlæg er faldet, som følge af installering af afsvovlningsanlæg samt brug af brændsler med lavere svovlindhold.

NO_X-emissionen fra stationær forbrænding er faldet med 43% siden 1985 og 23% siden 1995. Reduktionen skyldes primært at emissionen fra el og fjernvarmeproducerende anlæg er faldet som følge af at der benyttes lav-NO_X-brændere på flere anlæg og at der er idriftsat NO_X-røggasrensning på flere store kraftværker. Variationen i NO_X-emissionen følger variationen i import/eksport af el.

Forbrænding af træ i villakedler og brændeovne er forøget med 68% siden 1990 og dette har medført en stigning i CO-emissionen. Stigningen i CO-emissionen er dog ikke helt så stor, idet CO-emissionen fra halmfyrede gårdanlæg samtidig er faldet betydeligt.

Emissionen af NMVOC fra stationær forbrænding er øget med 43% siden 1985 og 15% siden 1995. Stigningen skyldes primært idriftsættelsen af gasmotorer på decentrale kraftvarmeværker.

Tungmetalemissionerne er faldet betydeligt siden 1990. Emissionen af de enkelte tungmetaller er reduceret mellem 7% og 84%. Faldet skyldes den forbedrede røggasrensing på affaldsforbrændingsanlæg og på kraftværker.

Emissionen af de forskellige PAH'er er steget 37-60% siden 1990, hvilket hænger sammen med den øgede mængde træ, der forbrændes i brændeovne eller små villakedler.

Summary

Danish emission inventories are prepared on an annual basis and are reported to the *UNECE Framework Convention on Climate Change* (UNFCCC or Climate Convention) and to the UNECE *Convention on Long-Range Transboundary Air Pollution* (LRTAP Convention). Furthermore, a greenhouse gas emission inventory is reported to the EU, due to the EU – as well as the individual member states – being party to the Climate Convention. The annual Danish emission inventories are prepared by the Danish National Environmental Research Institute (NERI). The inventories include the pollutants: CO_2, CH_4, N_2O, SO_2, NO_X, NMVOC, CO, particulate matter, heavy metals, dioxins and PAH. In addition to annual total emissions, the report includes sector specific emissions and uncertainty estimates. Every 5 years the reporting includes data on the geographical distribution of the emissions, a projection of emissions data and details of the activity data – e.g. fuel consumption – on which the inventories are based.

The inventories are based on the Danish energy statistics and on a set of emission factors for various sectors, technologies and fuels. Plant specific emissions for large combustion sources are incorporated into the inventories. This report provides detailed background information on the methodology and references for the input data in the inventory - energy statistics and emission factors.

The emission factors are based either on national references or on international guidebooks (EMEP/Corinair 2004 and IPCC 1996). The majority of the country-specific emission factors refer to: Danish legislation, Danish research reports or calculations based on plant-specific emissions from a considerable number of large point sources. The plant-specific emission factors are provided by plant operators, e.g. in annual environmental reports.

In the inventory for the year 2003, 70 stationary combustion plants are specified as large point sources. The point sources include large power plants, municipal waste incineration plants, industrial combustion plants and petroleum refining plants. The fuel consumption of these large point sources corresponds to 67% of the overall fuel consumption of stationary combustion.

The Danish fuel consumption rate fluctuates due to the import/export of electricity. Since 1990 fuel consumption has increased by 25%, fossil fuel consumption, however, only increasing by 18%. The use of coal has decreased whereas the use of natural gas and renewable fuels has increased.

Stationary combustion plants account for more than 50% of the total Danish emission for the following pollutants: SO_2, CO_2, heavy metals (except Cu) $PM_{2.5}$ and PAH. Furthermore, emissions from stationary combustion plants account for more than 10% of the total Danish emission for the following pollutants: NO_X, CO, NMVOC, TSP, PM_{10} and Cu. Stationary combustion plants account for less than 10% of the total Danish CH_4 and N_2O emission.

Public power plants represent the most important stationary combustion emission source for SO_2, CO_2, NO_X and heavy metals.

Lean-burn gas engines installed in decentralised CHP plants are the largest emission source for CH_4. Furthermore, these plants also represent a considerable emission source for NMVOC.

Residential plants are the most important stationary combustion source for CO, NMVOC, particulate matter and PAH. Wood combustion in residential plants is the predominant emission source.

The report in hand includes time-series for stationary combustion plants for the range of pollutants.

The development in greenhouse gas (GHG) emission follows that of CO_2 emission very closely. Both CO_2 and the total GHG emission were higher in 2003 than in 1990: CO_2 by 10% and GHG by 11%. However, fluctuations in the GHG emission level are significant, the fluctuations in the time-series arising from electricity import/export and outdoor temperature variations from year to year.

The CH_4 emission from stationary combustion has increased by a factor of 4,3 since 1990. This is a result of the considerable number of lean-burn gas engines installed in CHP plants in Denmark during this period.

SO_2 emission from stationary combustion plants has decreased by 94% from 1980 and 78% from 1995. The large emission decrease is mainly a result of the reduced emission from electricity and district heat production made possible by installation of desulphurisation plants and due to the use of fuels with lower sulphur content.

The NO_X emission from stationary combustion plants has decreased by 43% since 1985 and 23% since 1995. The reduced emission is mainly a result of the reduced emission from electricity and district heat production plants in which the use of low NO_X burners has increased. Also, de-NO_X flue gas cleaning units have been put into operation in a greater number of the larger power plants. The fluctuations in the time-series follow fluctuations in fuel consumption in power plants, these occurring due to electricity import/export.

Wood consumption in residential plants has increased by 68% since 1990 causing an increase in the CO emission. The increase in CO from residential plants is less steep than the increase in wood consumption as the CO emission from straw-fired farmhouse boilers has decreased considerably.

The NMVOC emission from stationary combustion plants has increased by 43% from 1985 and 15% from 1995. The increased NMVOC emission results mainly from the increased use of lean-burn gas engines.

All heavy metal emissions have decreased considerably since 1990 – between 7% and 84%. The decreases result from improvements in flue gas cleaning systems installed in municipal waste incineration plants and in power plants.

The PAH emission has increased since 1990 due to increased combustion of wood in residential plants.

1 Introduction

The Danish atmospheric emission inventories are prepared on an annual basis and the results are reported to the *UN Framework Convention on Climate Change* (UNFCCC or Climate Convention) and to the UNECE *Convention on Long-Range Transboundary Air Pollution* (LRTAP Convention). Furthermore, a greenhouse gas emission inventory is reported to the EU, due to the EU – as well as the individual member states – being party to the Climate Convention. The Danish atmospheric emission inventories are calculated by the Danish National Environmental Research Institute (NERI).

This report provides a summary of the emission inventories for stationary combustion and background documentation for the estimates. Stationary combustion plants include power plants, district heating plants, non-industrial and industrial combustion plants, industrial process burners, petroleum-refining plants, as well as combustion in oil/gas extraction and in pipeline compressors. Emissions from flaring in oil/gas production and from flaring carried out in refineries are not covered by this report.

This report presents detailed emission inventories and time-series for emissions from stationary combustion plants. Furthermore, emissions from stationary combustion plants are compared with total Danish emissions. The methodology and references for the emission inventories for stationary combustion plants are described. Furthermore, uncertainty estimates are provided.

2 Total Danish emissions, international conventions and reduction targets

2.1 Total Danish emissions

An overview of the Danish emission inventories for 2003 including all sectors is shown in Table 1-Table 4. The emission inventories reported to the LRTAP Convention and to the Climate Convention are organised in 6 main source categories and a number of sub categories. The emission source *1 Energy* covers combustion in stationary and mobile sources as well as fugitive emissions from the energy sector. Emissions from incineration of municipal waste in power plants or district heating plants are included in the source category *1 Energy*, rather than in the source category *6 Waste*.

Links to the latest emission inventories can be found on the NERI home page: *http://www2.dmu.dk/1_Viden/2_Miljoe-tilstand/3_luft/4_adaei/default_en.asp* or via www.dmu.dk. Surveys of the latest inventories and the updated emission factors are also available on the NERI homepage.

Note that according to convention decisions emissions from certain specific sources are not included in the inventory totals. These emissions are reported as memo items and are thus estimated, but not included in the totals. The data for the total Danish emission included in this report does not include memo items.

- CO_2 emission from renewable fuels is not included in national totals, but reported as a memo item.
- Emissions from international bunkers and from international aviation are not included in national totals.

Further emission data for stationary combustion plants are provided in Chapters 5-9.

Table 1 Greenhouse gas emission for the year 2003 (Illerup et al. 2005a).

Pollutant	CO_2	CH_4	N_2O	HFCs, PFCs and SF6
Unit		Gg CO_2 equivalent		
1. Energy	57.635	771	912	-
2. Industrial Processes	1.488	-	895	746
3. Solvent and Other Product Use	206	-	-	-
4. Agriculture	-	3.706	6.192	-
5. Land-Use Change and Forestry	-1.204	-	-	-
6. Waste	-	1.397	61	-
Total Danish emission (gross)[1)]		**74.008**		
Total Danish emission (net) [2)]		**72.804**		

1) Not including Land-Use Change and Forestry
2) Including Land-Use Change and Forestry

Table 2 Emissions 2003 reported to the LRTAP Convention (Illerup et al. 2005b).

Pollutant	NO_x Gg	CO Gg	NMVOC Gg	SO_2 Gg	TSP Mg	PM_{10} Mg	$PM_{2.5}$ Mg
1. Energy	209	593	89	31	25950	22853	20408
2. Industrial Processes	0	-	1	-	323	258	194
3. Solvent and Other Product Use	-	-	67	-	-	-	-
4. Agriculture	-	-	2	-	16412	7386	1641
5. Land-Use Change and Forestry	-	-	-	-	-	-	-
6. Waste	0	0	0	0	0	0	0
Total Danish emission	**209**	**593**	**158**	**31**	**42685**	**30497**	**22243**

Table 3 Emissions 2003 reported to the LRTAP Convention (Illerup et al. 2005b).

Pollutant	Pb Mg	Cd Mg	Hg Mg	As Mg	Cr Mg	Cu Mg	Ni Mg	Se Mg	Zn Mg
1. Energy	4,59	0,58	1,24	0,76	1,23	8,76	10,57	2,11	22,63
2. Industrial Processes	0,07	0,00	-	-	-	0,05	-	-	0,63
3. Solvent and Other Product Use	-	-	-	-	-	-	-	-	-
4. Agriculture	-	-	-	-	-	-	-	-	-
5. Land-Use Change and Forestry	-	-	-	-	-	-	-	-	-
6. Waste	-	-	-	-	-	-	-	-	-
Total Danish emission	**4,66**	**0,58**	**1,24**	**0,76**	**1,23**	**8,80**	**10,57**	**2,11**	**23,27**

Table 4 Emissions 2003 reported to the LRTAP Convention (Illerup et al. 2005b).

Pollutant	Benzo(a)-pyrene Mg	Benzo(b)fluo-ranthene Mg	Benzo(k)-fluoranthene Mg	Indeno(1,2,3-c,d)pyrene Mg	Dioxin [1] g I-teq
1. Energy	2,97	3,95	1,34	2,22	30,29
2. Industrial Processes	-	-	-	-	1,00
3. Solvent and Other Product Use	-	-	-	-	13,25
4. Agriculture	-	-	-	-	-
5. Land-Use Change and Forestry	-	-	-	-	-
6. Waste	-	-	-	-	22,85
7. Other	-	-	-	-	10,25
Total Danish emission	**2,97**	**3,95**	**1,34**	**2,22**	**77,64**

1) Dioxin emission inventories are estimated by the Danish Environmental Protection Agency

2.2 International conventions and reduction targets

Denmark is a party to two international conventions relevant with regard to emissions from stationary combustion plants:

- The UNECE Convention on Long Range Transboundary Air Pollution (LRTAP Convention or the Geneva Convention)
- The UN Framework Convention on Climate Change under the Intergovernmental Panel on Climate Change (IPCC). The convention is also called UNFCCC or the Climate Convention.

The LRTAP Convention is a framework convention and has expanded to cover 8 protocols:

- *EMEP Protocol*, 1984 (Geneva).
- *Protocol on Reduction of Sulphur Emissions*, 1985 (Helsinki).
- *Protocol concerning the Control of Emissions of Nitrogen Oxides*, 1988 (Sofia).
- *Protocol concerning the Control of Emissions of Volatile Organic Compounds*, 1991 (Geneva).
- *Protocol on Further Reduction of Sulphur Emissions*, 1994 (Oslo).
- *Protocol on Heavy Metals*, 1988 (Aarhus).
- *Protocol on Persistent Organic Pollutants (POPs)*, 1998 (Aarhus).
- *Protocol to Abate Acidification, Eutrophication and Ground-level Ozone*, 1999 (Gothenburg).

The reduction targets/emission ceilings included in the protocols of the LRTAP Convention are stated in Table 5.

Table 5 Danish reduction targets / emission ceiling, LRTAP Convention.

Pollutant	Reduction / emission ceiling	Reference	Comment
SO_2	55 Gg in 2010	Gothenburg protocol	The ceiling equals 177% of the 2003 emission
NO_X	127 Gg in 2010	Gothenburg protocol	The ceiling equals 61% of the 2003 emission
NMVOC	85 Gg in 2010	Gothenburg protocol	The ceiling equals 54% of the 2003 emission

The Climate Convention is a framework convention from 1992. The Kyoto protocol is a protocol to the Climate Convention.

The Kyoto protocol sets legally-binding emission targets and timetables for 6 greenhouse gases: CO_2, CH_4, N_2O, HFC, PFC and SF_6. The greenhouse gas emission of each of the 6 pollutants is translated to CO_2 equivalents, which can be totalled to produce total greenhouse gas (GHG) emission in CO_2 equivalent. Denmark is obliged to reduce the average 2008-2010 GHG emission by 21% compared to the 1990 emission level.

EU is a party to the Climate Convention and, thereby, EU countries are obliged to submit emission data to the EU Monitoring Mechanism for CO_2 and other Greenhouse Gases.

3 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 2004). Emission data are stored in an Access database, from which data are transferred to the reporting formats.

The emission inventory for stationary combustion is based on activity rates from the Danish energy statistics. General emission factors for various fuels, plants and sectors have been determined. Some large plants, such as 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 (Hansen & Hansen 2003). Dioxin emission data are presented, but not further discussed in this report.

3.1 Emission source categories

In the Danish emission database all activity rates and emissions are defined in SNAP sector categories (Selected Nomenclature for Air Pollution) according the CORINAIR system. The emission inventories are prepared from a complete emission database based on the SNAP sectors. Aggregation to the sector codes used for both the Climate Convention and the LRTAP Convention is based on a correspondence list between SNAP and IPCC enclosed in Appendix 3.

The sector codes applied in the reporting activity will be referred to as IPCC sectors. The IPCC sectors define 6 main source categories, listed in Table 6, and a number of subcategories. Stationary combustion is part of the IPCC sector 1, *Energy*. Table 7 presents subsectors in the IPCC energy sector. The table also presents the sector in which the NERI documentation is included. Though industrial combustion is part of the stationary combustion detailed documentation for some of the specific industries is discussed in the industry chapters/reports. Stationary combustion is defined as combustion activities in the SNAP sectors 01-03.

Table 6 IPCC main sectors.

1. Energy
2. Industrial Processes
3. Solvent and Other Product Use
4. Agriculture
5. Land-Use Change and Forestry
6. Waste

Table 7 IPCC source categories for the energy sector.

IPCC id	IPCC sector name	NERI documentation
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, Industry
1A2d	Pulp, Paper and Print	Stationary combustion, Industry
1A2e	Food Processing, Beverages and Tobacco	Stationary combustion, Industry
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 emissions 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 included in tables and figures in this report only include emissions originating from stationary combustion plants of a given IPCC sector. The IPCC sector codes have been applied unchanged,

but some sector names have been changed to reflect the stationary combustion element of the source.

The CO_2 from calcination is not part of the energy sector. This emission is included in the IPCC sector 2 Industrial processes.

3.2 Large point sources

Large emission sources such as power plants, industrial plants and refineries are included as large point sources in the Danish emission database. Each point source may 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 2003, 70 stationary combustion plants are specified as large point sources. These point sources include:

- Power plants and decentralised CHP plants (combined heat and power plants)
- Municipal waste incineration plants
- Large industrial combustion plants
- Petroleum refining plants

The fuel consumption of stationary combustion plants registered as large point sources is 414 PJ (2003). This corresponds to 67% of the overall fuel consumption for stationary combustion.

A list of the large point sources for 2003 and the fuel consumption rates is provided in Appendix 7. The number of large point sources registered in the databases increased from 1990 to 2003. In the emission database for the years before 1990 only one large point source have been registered.

The emissions from a point source are based either on plant specific emission data or, if plant specific data are not available, on fuel consumption data and the general Danish emission factors. Appendix 7 shows which of the emission data for large point sources are plant-specific and which are based on emission factors.

SO_2 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 SO_2 and NO_X from power plants >25MW_e prepared for the Danish Energy Authority due to Danish legislatory requirement
- Emission data reported by Elsam and E2, the two major electricity suppliers
- Emission data reported from industrial plants

Annual environmental reports for 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 have potentially been calculated from general emission factors.

If plant-specific emission factors are not available, general area source emission factors are used. Emissions of the greenhouse gases (CO_2, CH_4 and N_2O) from the large point sources are all based on the area source emission factors.

3.3 Area sources

Fuels not combusted in large point sources are included as sector specific area sources in the emission database. Plants such as 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 on emission factors is provided below.

3.4 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 2004a). Some fuel types in the official Danish energy statistics are added to obtain a less detailed fuel aggregation level, see Appendix 9. The calorific values on which the energy statistics are based are also enclosed in Appendix 9.

The fuel consumption of the IPCC sector *1A2 Manufacturing industries and construction* (corresponding to SNAP sector *03 Combustion in manufacturing industries)* is not disaggregated into specific industries in the NERI emission database. So far disaggregation into specific industries are only estimated for the reportings to the Climate Convention. The disaggregation of fuel consumption and emissions from the industrial sector is discussed in chapter 3.6.

Both traded and non-traded fuels are included in the Danish energy statistics. Thus, for example, estimation of the annual consumption of non-traded wood is included.

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

The Danish Energy Authority (DEA) compiles a database for the fuel consumption of each district heating and power-producing plant, based on data reported by plant operators. The fuel consumption of large point sources specified in the Danish emission database refers to the DEA database (DEA 2004c).

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 have not been included in the Danish inventory, to date, but the non-energy use of fuels is, however, included in the reference approach for Climate Convention reporting. The Danish energy statistics include three fuels used for non-energy purposes: Bitumen, white spirit and lube oil. The fuels used for non-energy purposes add up to less than 2% of the total fuel consumption in Denmark.

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

Fuel consumption data are presented in Chapter 4.

3.5 Emission factors

For each fuel and SNAP category (sector and e.g. type of plant) a set of general area source emission factors has been determined. The emission factors are either nationally referenced or based on the international guidebooks: EMEP/Corinair Guidebook (EMEP/Corinair 2004) and IPCC Reference Manual (IPCC 1996).

A complete list of emission factors including time-series and references is provided in Appendix 5.

A considerable part of the emission data for municipal waste incineration plants and large power plants are plant-specific. The area source emission factors do not, therefore, necessarily represent average values for these plant categories. To attain a set of emission factors that expresses the average emission for power plants combusting coal and for municipal waste incineration plants, implied emission factors have been calculated for these two plant categories. The implied emission factors are presented in Appendix 6. The implied emission factors are calculated as total emission divided by total fuel consumption.

3.5.1 CO_2

The CO_2 emission factors applied for 2003 are presented in Table 8. For municipal waste and natural gas, time-series have been estimated. For all other fuels the same emission factor is applied for 1990-2003.

In reporting for the Climate Convention, the CO_2 emission is aggregated to five fuel types: Solid fuel, Liquid fuel, Gas, Biomass and Other fuels. The correspondence list between the NERI fuel categories and the IPCC fuel categories is also provided in Table 8.

Only emissions from fossil fuels are included in the national total CO_2 emission. The biomass emission factors are also included in the table, because emissions from biomass are reported to the Climate Convention as a memo item.

The CO_2 emission from incineration of municipal waste (94,5 + 17,6 kg/GJ) is divided into two parts: The emission from combustion of the plastic content of the waste, which is included in the national total, and the emission from combustion of the rest of the waste – the biomass part, which is reported as a memo item. In the IPCC reporting, the CO_2 emission from combustion of the plastic content of the waste is reported in the fuel category, *Other fuels*. However, this split is not applied in either fuel consumption or other emissions, because it is only relevant for CO_2. Thus, the full consumption of municipal waste is included in the fuel category, *Biomass,* and the full amount of non-CO_2 emissions from municipal waste combustion is also included in the *Biomass*-category.

The CO_2 emission factors have been confirmed by the two major power plant operators, both directly (Christiansen, 1996 and Andersen, 1996) and indirectly, by applying the NERI emission factors in the annual environmental reports for the large power plants and by accepting use of the NERI factors in Danish legislation.

The current Danish legislation concerning CO_2 emission from power plants in 2003 and 2004 (Lov nr. 376 1999) is based on standard CO_2 emission factors for each fuel. Thus, so far power plant operators have not been encouraged to estimate CO_2 emission factors based on their own fuel analysis. In future legislation (Lov nr. 493 2004) operators of large power plants are obliged to verify the applied emission factors, which will lead to the availability of improved emission factors for national emission inventories in future. The plants will report CO_2 emissions for 2005 according to this legislation.

Table 8 CO_2 emission factors 2003.

Fuel	Emission factor		Unit	Reference type	IPCC fuel
	Biomass	Fossil fuel			Category
Coal		95	kg/GJ	Country specific	Solid
Brown coal briquettes		94,6	kg/GJ	IPCC reference manual	Solid
Coke oven coke		108	kg/GJ	IPCC reference manual	Solid
Petroleum coke		92	kg/GJ	Country specific	Liquid
Wood	102		kg/GJ	Corinair	Biomass
Municipal waste	94,5	17,6	kg/GJ	Country specific	Biomass / Other fuels
Straw	102		kg/GJ	Country specific	Biomass
Residual oil		78	kg/GJ	Corinair	Liquid
Gas oil		74	kg/GJ	Corinair	Liquid
Kerosene		72	kg/GJ	Corinair	Liquid
Fish & rape oil	74		kg/GJ	Country specific	Biomass
Orimulsion		80	kg/GJ	Country specific	Liquid
Natural gas		57,19	kg/GJ	Country specific	Gas
LPG		65	kg/GJ	Corinair	Liquid
Refinery gas		56,9	kg/GJ	Country specific	Liquid
Biogas	83,6		kg/GJ	Country specific	Biomass

Coal

The emission factor 95 kg/GJ is based on Fenhann & Kilde 1994. The CO_2 emission factors have been confirmed by the two major power plant operators in 1996 (Christiansen 1996 and Andersen 1996). Elsam reconfirmed the factor in 2001 (Christiansen 2001). The same emission factor is applied for 1990-2003.

Brown coal briquettes

The emission factor 94,6 kg/GJ is based on a default value from the IPCC guidelines assuming full oxidation. The default value in the IPCC guidelines is 25,8 t C/TJ, corresponding to $25{,}8 \cdot (12+2 \cdot 16)/12 = 94{,}6$ kg CO_2/GJ assuming full oxidation.

Coke oven coke

The emission factor 108 kg/GJ is based on a default value from the IPCC guidelines assuming full oxidation. The default value in the IPCC guidelines is 29,5 t C/TJ, corresponding to 29,5·(12+2·16)/12 = 108 kg CO_2/GJ assuming full oxidation.

Petroleum coke

The emission factor 92 kg/GJ has been estimated by SK Energy (a former major power plant operator in eastern Denmark) in 1999 based on a fuel analysis carried out by dk-Teknik in 1993 (Bech 1999). The emission factor level was confirmed by a new fuel analysis, which, however, is considered confidential. The same emission factor is applied for 1990-2003.

Wood

The emission factor for wood, 102 kg/GJ, refers to Fenhann & Kilde 1994. The factor is based on the interval stated in a former edition of the EMEP/Corinair Guidebook and the actual value is the default value from the Collector database. The same emission factor is applied for 1990-2003.

Municipal waste

The CO_2 emission from incineration of municipal waste is divided into two parts: The emission from combustion of the plastic content of the waste, which is included in the national total, and the emission from combustion of the rest of the waste – the biomass part, which is reported as a memo item.

The plastic content of waste was estimated to be 6,6 w/w% in 2003 (Hulgaard 2003). The weight share, lower heating values and CO_2 emission factors for different plastic types are estimated by Hulgaard in 2003 (Table 9). The total weight share for plastic and for the various plastic types is assumed to be the same for all years (NERI assumption).

Table 9 Data for plastic waste in Danish municipal waste (Hulgaard 2003)[1)2)].

Plastic type	Mass share of plastic in municipal waste in Denmark		Lower heating value of plastic	Energy content of plastic	CO_2 emission factor for plastic	CO_2 emission factor
	kg plastic/ kg municipal waste	% of plastic	MJ/kg plastic	MJ/kg municipal waste	g/MJ plastic	g/kg municipal waste
PE	0,032	48	41	1,312	72,5	95
PS/EPS	0,02	30	37	0,74	86	64
PVC	0,007	11	18	0,126	79	10
Other (PET, PUR, PC, POM, ABS, PA etc.)	0,007	11	24	0,168	95	16
Total	0,066	100	35,5	2,346	78,7	185

Hulgaard 2003 refers to:
1) TNO report 2000/119, Eco-efficiency of recovery scenarios of plastic packaging, Appendices, July 2001 by P.G. Eggels, A.M.M. Ansems, B.L. van der Ven, for Association of Plastic Manufacturers in Europe
2) Kost, Thomas, Brennstofftechnische Charakterisierung von Haushaltabfällen, Technische Universität Dresden, Eigenverlag des Forums für Abfallwirtschaft und Altlasten e.V., 2001

Based on emission measurements on 5 municipal waste incineration plants (Jørgensen & Johansen, 2003) the total CO_2 emission factor for municipal waste incineration has been determined to be 112,1 kg/GJ. The CO_2 emission from the biomass part is the total CO_2 emission minus the CO_2 emission from the plastic part.

Thus, in 2003 the CO_2 emission factor for the plastic content of waste was estimated to be 185g/kg municipal waste (Table 9). The CO_2 emission per GJ of waste is calculated based on the lower heating values for waste listed in Table 10 (DEA 2004b). It has been assumed that the plastic content in weight per cent is constant, resulting in a decreasing energy per cent since the lower heating value (LHV) is increasing. However, the increasing LHV may be a result of increasing plastic content in the municipal waste. Time-series for the CO_2 emission factor for plastic content in waste are included in Table 10.

Emission data from four waste incineration plants (Jørgensen & Johansen 2003) demonstrate the fraction of the carbon content of the waste not oxidised to be approximately 0,3%. The unoxidised fraction of the carbon content is assumed to originate from the biomass content, and all carbon originating from plastic are assumed to be oxidised.

Table 10 CO_2 emission factor for municipal waste, plastic content and biomass content.

Year	Lower heating value of municipal waste [1]	Plastic content	CO_2 emission factor for plastic [3]	CO_2 emission factor for plastic	CO_2 emission factor for municipal waste, total [2]	CO_2 emission factor for biomass content of waste
	[GJ/Mg]	[% of energy]	[g/kg waste]	[kg/GJ waste]	[kg/GJ waste]	[kg/GJ waste]
1990	8,20	28,6	185	22,5	112,1	89,6
1991	8,20	28,6	185	22,5	112,1	89,6
1992	9,00	26,1	185	20,5	112,1	91,6
1993	9,40	25,0	185	19,6	112,1	92,5
1994	9,40	25,0	185	19,6	112,1	92,5
1995	10,00	23,5	185	18,5	112,1	93,6
1996	10,50	22,3	185	17,6	112,1	94,5
1997	10,50	22,3	185	17,6	112,1	94,5
1998	10,50	22,3	185	17,6	112,1	94,5
1999	10,50	22,3	185	17,6	112,1	94,5
2000	10,50	22,3	185	17,6	112,1	94,5
2001	10,50	22,3	185	17,6	112,1	94,5
2002	10,50	22,3	185	17,6	112,1	94,5
2003	10,50	22,3	185	17,6	112,1	94,5

1) DEA 2004b
2) Based on data from Jørgensen & Johansen 2003
3) From Table 9

Straw

The emission factor for straw, 102 kg/GJ refers to Fenhann & Kilde 1994. The factor is based on the interval stated in the EMEP/Corinair Guidebook (EMEP/Corinair 2004) and the actual value is the default value from the Collecter database. The same emission factor is applied for 1990-2003.

Residual oil

The emission factor 78 kg/GJ refers to Fenhann & Kilde 1994. The factor is based on the interval stated in the EMEP/Corinair Guidebook (EMEP/Corinair 2004). The factor is slightly higher than the IPCC default emission factor for residual fuel oil (77,4 kg/GJ assuming full oxidation). The CO_2 emission factors have been confirmed by the two major power plant operators in 1996 (Christiansen 1996 and Andersen 1996). The same emission factor is applied for 1990-2003.

Gas oil

The emission factor 74 kg/GJ refers to Fenhann & Kilde 1994. The factor is based on the interval stated in the EMEP/Corinair Guidebook (EMEP/Corinair 2004). The factor agrees with the IPCC default emission fac-

tor for gas oil (74,1 kg/GJ assuming full oxidation). The CO_2 emission factors have been confirmed by the two major power plant operators in 1996 (Christiansen 1996 and Andersen 1996). The same emission factor is applied for 1990-2003.

Kerosene

The emission factor 72 kg/GJ refers to Fenhann & Kilde 1994. The factor agrees with the IPCC default emission factor for other kerosene (71,9 kg/GJ assuming full oxidation). The same emission factor is applied for 1990-2003.

Fish & rape oil

The emission factor is assumed to be the same as for gas oil – 74 kg/GJ. The consumption of fish and rape oil is relatively low.

Orimulsion

The emission factor 80 kg/GJ refers to the Danish Energy Authority (DEA 2004). The IPCC default emission factor is almost the same: 80,7 kg/GJ assuming full oxidation. The CO_2 emission factors have been confirmed by the only major power plant operator using orimulsion (Andersen 1996). The same emission factor is applied for 1990-2003.

Natural gas

The emission factor for natural gas is estimated by the Danish gas transmission company, Gastra[1] (Lindgren 2004). Only natural gas from the Danish gas fields is utilised in Denmark. The calculation is based on gas analysis carried out daily by Gastra. Gastra and the Danish Gas Technology Centre have calculated emission factors for 2000-2003. The emission factor applied for 1990-1999 refers to Fenhann & Kilde 1994. This emission factor was confirmed by the two major power plant operators in 1996 (Christiansen 1996 and Andersen 1996). Time-series for the CO_2 emission factors is provided in Table 11.

Table 11 CO_2 emission factor for natural gas.

Year	CO_2 emission factor
1990-1999	56,9 kg/GJ
2000	57,1 kg/GJ
2001	57,25 kg/GJ
2002	57,28 kg/GJ
2003	57,19 kg/GJ

LPG

The emission factor 65 kg/GJ refers to Fenhann & Kilde 1994. The emission factor is based on the EMEP/Corinair Guidebook (EMEP/Corinair 2004). The emission factor is somewhat higher than the IPCC default emission factor (63 kg/GJ assuming full oxidation). The same emission factor is applied for 1990-2003.

Refinery gas

The emission factor applied for refinery gas is the same as the emission factor for natural gas 1990-1999. The emission factor is within the interval of the

[1] Former part of DONG. From 2005 part of the new national electricity and gas transmission company Energinet.dk

emission factor for refinery gas stated in the EMEP/Corinair Guidebook (EMEP/Corinair 2004). The same emission factor is applied for 1990-2003.

Biogas

The emission factor 83,6 kg/GJ is based on a biogas with 65% (vol.) CH_4 and 35% (vol.) CO_2. Danish Gas Technology Centre has stated that this is a typical manure-based biogas as utilised in stationary combustion plants (Kristensen 2001).

3.5.2 CH_4

The CH_4 emission factors applied for 2003 are presented in Table 12. In general, the same emission factors have been applied for 1990-2003. However, time-series have been estimated for both natural gas fuelled engines and biogas fuelled engines.

Emission factors for gas engines, gas turbines and CHP plants combusting wood, straw or municipal waste all refer to emission measurements carried out on Danish plants (Nielsen & Illerup 2003). Other emission factors refer to the EMEP/Corinair Guidebook (EMEP/Corinair 2004).

Gas engines combusting natural gas or biogas contribute much more to the total CH_4 emission than other stationary combustion plants. The relatively high emission factor for gas engines is well-documented and further discussed below.

Table 12 CH_4 emission factors 1990-2003.

Fuel	ipcc_id	SNAP_id	Emission factor [g/GJ]	Reference
COAL	1A1a	010101, 010102, 010103	1,5	EMEP/Corinair 2004
COAL	1A1a, 1A2f, 1A4b, 1A4c	010202, 010203, 0301, 0202, 0203	15	EMEP/Corinair 2004
BROWN COAL BRI.	all	all	15	EMEP/Corinair 2004, assuming same emission factor as for coal
COKE OVEN COKE	all	all	15	EMEP/Corinair 2004, assuming same emission factor as for coal
PETROLEUM COKE	all	all	15	EMEP/Corinair 2004
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	2	Nielsen & Illerup 2003
WOOD AND SIMIL.	1A4a, 1A4b, 1A4c	0201, 0202, 0203	200	EMEP/Corinair 2004
WOOD AND SIMIL.	1A1a, 1A2f	010105, 010202, 010203, 0301, 030102, 030103	32	EMEP/Corinair 2004
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	0,59	Nielsen & Illerup 2003
MUNICIP. WASTES	1A1a, 1A2f, 1A4a	all other	6	EMEP/Corinair 2004
STRAW	1A1a	010102, 010103	0,5	Nielsen & Illerup 2003
STRAW	1A1a, 1A2f, 1A4c	010202, 010203, 020302, 030105	32	EMEP/Corinair 2004
STRAW	1A4b, 1A4c	0202, 0203	200	EMEP/Corinair 2004
RESIDUAL OIL	all	all	3	EMEP/Corinair 2004
GAS OIL	all	all	1,5	EMEP/Corinair 2004
KEROSENE	all	all	7	EMEP/Corinair 2004
FISH & RAPE OIL	all	all	1,5	EMEP/Corinair 2004, assuming same emission factor as gas oil
ORIMULSION	1A1a	010101	3	EMEP/Corinair 2004, assuming same emission factor as residual oil
NATURAL GAS	1A1a	0101, 010101, 010102, 010202	6	DGC 2001
NATURAL GAS	1A1a	010103, 010203	15	Gruijthuijsen & Jensen 2000
NATURAL GAS	1A1a, 1Ac, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010504, 030104, 020104, 020303	1,5	Nielsen & Illerup 2003
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 010505, 030105, 020105, 020204, 020304	1) 520	Nielsen & Illerup 2003
NATURAL GAS	1A1c, 1A2f, 1A4a, 1A4b, 1A4c	010502, 0301, 0201, 0202, 0203	6	DGC 2001
NATURAL GAS	1A2f, 1A4a, 1A4b	030103, 030106, 020103, 020202	15	Gruijthuijsen & Jensen 2000
LPG	all	all	1	EMEP/Corinair 2004
REFINERY GAS	1A1b	010304	1,5	EMEP/Corinair 2004
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	1) 323	Nielsen & Illerup 2003
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	all other	4	EMEP/Corinair 2004

1) 2003 emission factor. Time-series is shown below

3.5.2.1 CHP plants

A considerable portion of the electricity production in Denmark is based on decentralised CHP plants, and well-documented emission factors for these plants are, therefore, of importance. In a project carried out for the electricity transmission company in Western Denmark, Eltra, emission factors for CHP plants <25MW_e have been estimated. The work was reported in 2003 (Nielsen & Illerup 2003) and the results have been fully implemented in the inventory reported in 2004.

The work included municipal waste incineration plants, CHP plants combusting wood and straw, natural gas and biogas-fuelled (reciprocating) engines, and natural gas fuelled gas turbines. CH_4 emission factors for these plants all refer to Nielsen & Illerup 2003. The estimated emission factors were based on existing emission measurements as well as on emission measurements carried out within the project. The number of emission data sets was comprehensive. Emission factors for subgroups of each plant type were estimated, e.g. the CH_4 emission factor for different gas engine types have been determined.

Gas engines, natural gas

SNAP 010105, 010205, 010505, 030105, 020105, 020204 and 020304

The emission factor for natural gas engines was determined as 520 g/GJ in 2000 and the same emission factor has been applied for 2001 - 2003. The emission factor for natural gas engines was based on 291 emission measurements on 114 different plants. The plants from which emission measurements were available represented 44% of the total gas consumption in gas engines. The emission factor was estimated based on fuel consumption of each gas engine type and the emission factor for each engine type. The majority of emission measurements that were not performed within the project related solely to emission of total unburned hydrocarbon (CH_4 + NMVOC). A constant disaggregation factor was estimated based on a number of emission measurements including both CH_4 and NMVOC.

The emission factor for lean-burn gas engines is relatively high, especially for prechamber engines, which account for more than half the gas consumption in Danish gas engines. However, the emission factors for different prechamber engine types differ considerably.

The installation of natural gas engines in decentralised CHP plants in Denmark has taken place since 1990. The first engines installed were relatively small open-chamber engines and in later years mainly prechamber engines were installed. As mentioned above, prechamber engines have a higher emission factor than open-chamber engines, therefore, the emission factor has changed during the period 1990-2003. A time-series for the emission factor has been estimated and is presented below (Nielsen & Illerup 2003). The time-series was based on:

- Emission factors for different engine types
- Data for year of installation for each engine and fuel consumption of each engine 1994-2003 from the Danish Energy Authority (DEA 2004c)
- Research concerning the CH_4 emission from gas engines carried out in 1997 (Nielsen & Wit 1997)

Table 13 Time-series for the CH_4 emission factor for natural gas fuelled engines.

Year	Emission factor [g/GJ]
1990	257
1991	299
1992	347
1993	545
1994	604
1995	612
1996	596
1997	534
1998	525
1999	524
2000	520
2001	520
2002	520
2003	520

Gas engines, biogas

SNAP 010105, 010505, 020105, 020304 and 030105

The emission factor for biogas engines was estimated to 323 g/GJ in 2000 and the same emission factor has been applied for 2001 - 2003. The emission factor for biogas engines was based on 18 emission measurements on 13 different plants. The plants from which emission measurements were available represented 18% of the total gas consumption in gas engines.

The emission factor is lower than the factor for natural gas, mainly because most engines are lean-burn open-chamber engines - not prechamber engines. A time-series for the emission factor has been estimated (Nielsen & Illerup 2003).

Table 14 Time-series for the CH_4 emission factor for biogas fuelled engines.

Year	Emission factor [g/GJ]
1990	239
1991	251
1992	264
1993	276
1994	289
1995	301
1996	305
1997	310
1998	314
1999	318
2000	323
2001	323
2002	323
2003	323

Gas turbines, natural gas

SNAP 010104, 010504, 020104, 020303 and 030104

The emission factor for gas turbines was estimated to be below 1,5g/GJ and the emission factor 1,5 g/GJ has been applied for all years. The emission factor was based on emission measurements on 9 plants.

CHP, wood

SNAP 010102 and, 010103 and 010104

The emission factor for CHP plants combusting wood was estimated to be below 2,1 g/GJ and the emission factor 2 g/GJ has been applied for all years. The emission factor was based on emission measurements on 3 plants.

CHP, straw

SNAP 010102 and 010103

The emission factor for CHP plants combusting straw was estimated to be below 0,5g/GJ and the emission factor 0,5g/GJ has been applied for all years. The emission factor was based on emission measurements on 4 plants.

CHP, municipal waste

SNAP 010102, 010103, 010104 and 010105

The emission factor for CHP plants combusting municipal waste was estimated to be below 0,59g/GJ and the emission factor 0,59g/GJ has been applied for all years. The emission factor was based on emission measurements on 16 plants.

3.5.2.2 Other stationary combustion plants

Emission factors for other plants refer to the EMEP/Corinair Guidebook (EMEP/Corinair 2004), the Danish Gas Technology Centre (DGC 2001) or Gruijthuijsen & Jensen 2000. The same emission factors are applied for 1990-2003.

3.5.3 N_2O

The N_2O emission factors applied for the 2003 inventory are listed in Table 15. The same emission factors have been applied for 1990-2003.

Emission factors for gas engines, gas turbines and CHP plants combusting wood, straw or municipal waste all refer to emission measurements carried out on Danish plants (Nielsen & Illerup 2003). Other emission factors refer to the EMEP/Corinair Guidebook (EMEP/Corinair 2004).

Table 15 N_2O emission factors 1990-2003.

Fuel	ipcc_id	SNAP_id	Emission factor [g/GJ]	Reference
COAL	all	all	3	EMEP/Corinair 2004
BROWN COAL BRI.	all	all	3	EMEP/Corinair 2004
COKE OVEN COKE	all	all	3	EMEP/Corinair 2004
PETROLEUM COKE	all	all	3	EMEP/Corinair 2004
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	0,8	Nielsen & Illerup 2003
WOOD AND SIMIL.	1A1a	010105, 010202, 010203	4	EMEP/Corinair 2004
WOOD AND SIMIL.	1A2f, 1A4a, 1A4b, 1A4c	all	4	EMEP/Corinair 2004
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	1,2	Nielsen & Illerup 2003
MUNICIP. WASTES	1A1a	010203	4	EMEP/Corinair 2004
MUNICIP. WASTES	1A2f, 1A4a	030102, 0201, 020103	4	EMEP/Corinair 2004
STRAW	1A1a	010102, 010103	1,4	Nielsen & Illerup 2003
STRAW	1A1a	010202, 010203	4	EMEP/Corinair 2004
STRAW	1A2f, 1A4b, 1A4c	all	4	EMEP/Corinair 2004
RESIDUAL OIL	all	all	2	EMEP/Corinair 2004
GAS OIL	all	all	2	EMEP/Corinair 2004
KEROSENE	all	all	2	EMEP/Corinair 2004
FISH & RAPE OIL	all	all	2	EMEP/Corinair 2004, assuming same emission factor as gas oil
ORIMULSION	1A1a	010101	2	EMEP/Corinair 2004, assuming same emission factor as residual oil
NATURAL GAS	1A1a	0101, 010101, 010102, 010103, 010202, 010203	1	EMEP/Corinair 2004
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010504, 030104, 020104, 020303	2,2	Nielsen & Illerup 2003
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 010505, 030105, 020105, 020204, 020304	1,3	Nielsen & Illerup 2003
NATURAL GAS	1A1c, 1A2f, 1A4a, 1A4b, 1A4c	010502, 0301, 030103, 030106, 0201, 020103, 0202, 020202, 0203	1	EMEP/Corinair 2004
LPG	all	all	2	EMEP/Corinair 2004
REFINERY GAS	all	all	2,2	EMEP/Corinair 2004
BIOGAS	1A1a	010102, 010103, 010203	2	EMEP/Corinair 2004
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	0,5	Nielsen & Illerup 2003
BIOGAS	1A2f, 1A4a, 1A4c	0301, 030102, 0201, 020103, 0203	2	EMEP/Corinair 2004

3.5.4 SO_2, NO_X, NMVOC and CO

Emission factors for SO_2, NO_X, NMVOC and CO are listed in Appendix 5. The appendix includes references and time-series.

The emission factors refer to:

- The EMEP/Corinair Guidebook (EMEP/Corinair 2004)
- The IPCC Guidelines, Reference Manual (IPCC 1996)
- Danish legislation:
  - Miljøstyrelsen 2001 (Danish Environmental Protection Agency)
  - Miljøstyrelsen 1990 (Danish Environmental Protection Agency)
  - Miljøstyrelsen 1998 (Danish Environmental Protection Agency)
- 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 emissions 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 plant operators.
- 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 number of the emission factors. These are provided in Appendix 5.

3.5.5 Particulate matter (PM)

Emission factors for PM are listed in Appendix 5. The appendix includes references. The emission factors are based on:

- The TNO/CEPMEIP emission factor database (TNO CEPMEIP 2001),
- A Nordic project where improved emission factors for residential wood combustion have been estimated (Sternhufvud et al. 2004))

and a considerable number of country-specific factors (Nielsen et al. 2003) referring to:

- Danish legislation:
  - Miljøstyrelsen 2001 (Danish Environmental Protection Agency).
  - Miljøstyrelsen 1990 (Danish Environmental Protection Agency).
- 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.

Emission factor time series have been estimated for residential wood combustion. All other emission factors are considered constant in 2000-2003.

3.5.6 Heavy metals

Emission factors for 2003 for heavy metals (HM) are presented in Appendix 5. 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 1990-2003.

3.5.7 PAH

Emission factors 2003 for PAHs are shown in Appendix 5. 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 on 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 2003 and Jensen 2001).

The same emission factors are applied for all years. In general, emission factors for PAH are uncertain.

3.6 Disaggregation to specific industrial subsectors

The national statistics on which the emission inventories is based does not include a direct disaggregation to specific industrial subsectors. However, separate national statistics from Statistics Denmark includes a disaggregation to industrial subsectors. This part of the energy statistics is also included in the official energy statistics from the Danish Energy Authority.

Every other year Statistics Denmark collects fuel consumption data for all industrial companies of a considerable size. The deviation between the total fuel consumption from the Danish Energy Authority and the data collected by Statistics Denmark is rather small. Thus the disaggregation to industrial subsectors available from Statistics Denmark can be applied for estimating disaggregation keys for fuel consumption and emissions.

The industrial fuel consumption is considered in three aspects:

– Fuel consumption for transport. This part of the fuel consumption is not disaggregated to subsectors.
– Fuel consumption applied in power or district heating plants. Disaggregation of fuel and emissions is plant specific.
– Fuel consumption for other purposes. The total fuel comsumption and the total emissions are disaggregated to subsectors.

The following emissions from the industrial sector are disaggregated to subsectors this year: CO_2, CH_4, N_2O, SO_2, NO_X, NMVOC and CO. Next year disaggregation of the remaining pollutants will be estimated and the disaggregated data reported to the LRTAP Convention.

4 Fuel consumption data

In 2003 total fuel consumption for stationary combustion plants was 622 PJ of which 537 PJ was fossil fuels. The fuel consumption rates are shown in Appendix 4.

Fuel consumption distributed on the stationary combustion subsectors is shown in Figure 1 and Figure 2. The majority - 64% - of all fuels is combusted in the sector, *Public electricity and heat production.* Other sectors with high fuel consumption are *Residential* and *Industry*.

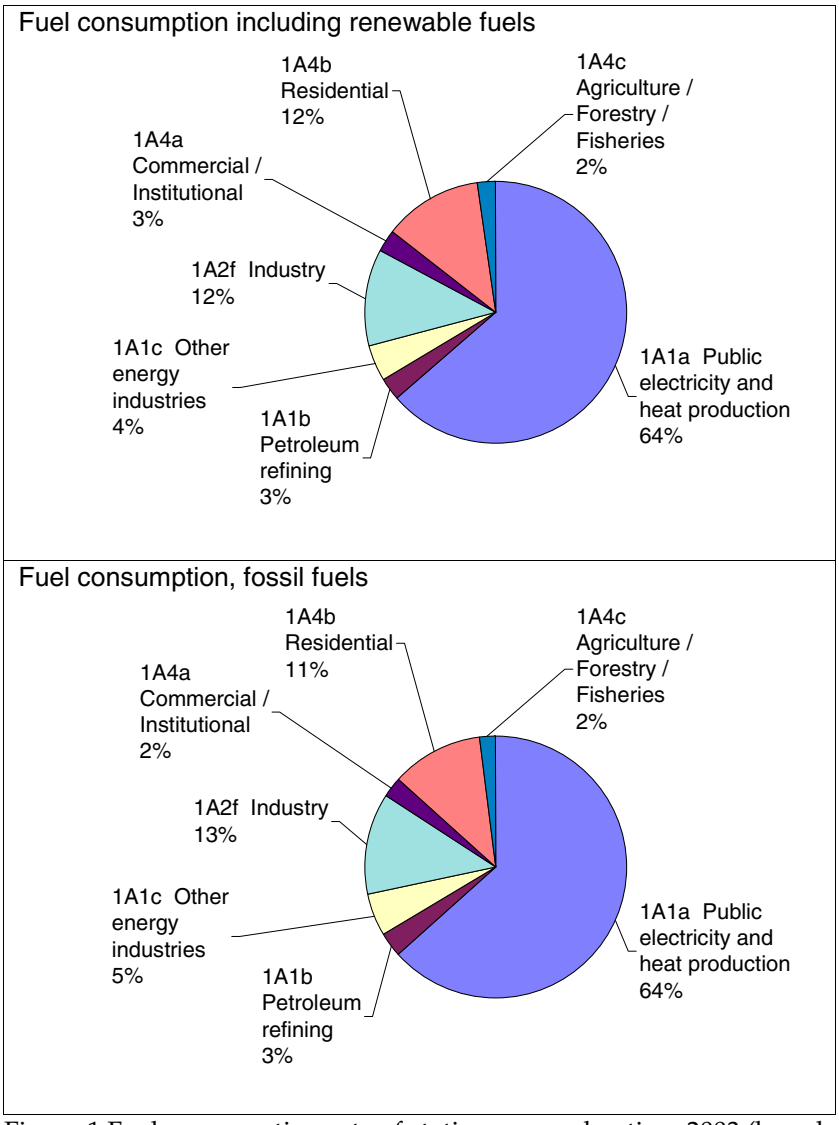


Figure 1 Fuel consumption rate of stationary combustion, 2003 (based on DEA 2004a).

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.

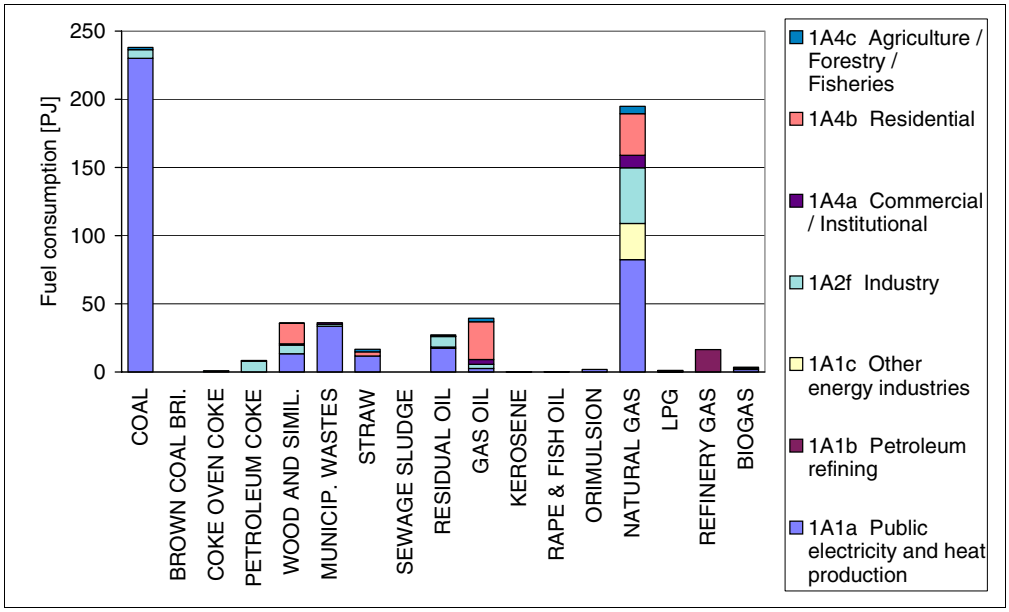


Figure 2 Fuel consumption of stationary combustion plants 2003 (based on DEA 2004a).

Fuel consumption time-series for stationary combustion plants are presented in Figure 3. The total fuel consumption has increased by 25% from 1990 to 2003, while the fossil fuel consumption has only increased by 18%. The consumption of natural gas and renewable fuels has increased since 1990 whereas coal consumption has decreased.

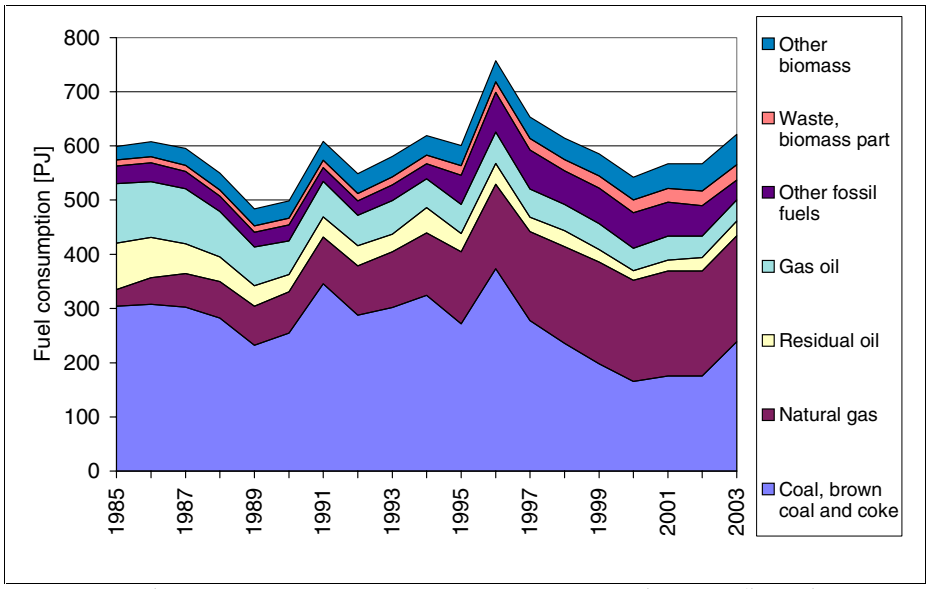


Figure 3 Fuel consumption time-series, stationary combustion (based on DEA 2004a).

The fluctuations in the time-series for fuel consumption are a result mainly of electricity import/export activity, but also of outdoor temperature variations from year to year. This, in turn, leads to fluctuations in emission levels. The fluctuations in electricity trade, fuel consumption and NO_x emission are illustrated 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 2003 the net electricity export was 30760 TJ which is much higher than in 2002. The high electricity

export in 2003 is a result of low rainfall in Norway and Sweden causing insufficient hydropower production in both countries.

To be able to follow the national energy consumption as well as 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 ambient temperature. This fuel consumption trend is also illustrated in Figure 4. The corrections are included here to explain the fluctuations in the emission time-series.

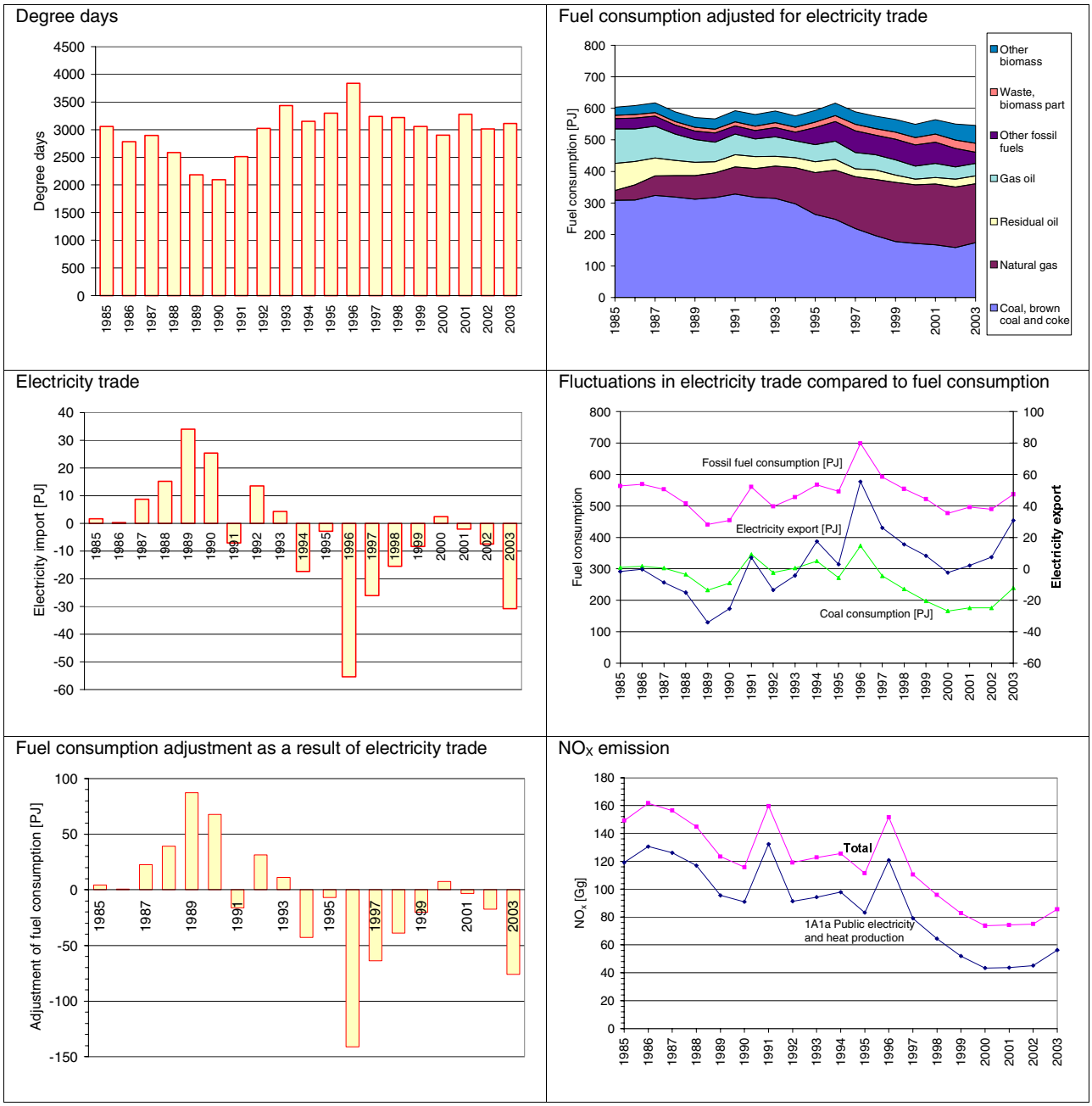


Figure 4 Comparison of time-series fluctuations for electricity trade, fuel consumption and NO_x emission (DEA 2004b).

5 Greenhouse gas emission

The total Danish greenhouse gas (GHG) emission in the year 2003 was 74.008 Gg CO_2 equivalent not including land-use change and forestry or 72.804 Gg CO_2 equivalent including land-use change and forestry. The greenhouse gas pollutants HFCs, PFCs and SF_6 are not emitted from combustion plants and, as such, only the pollutants CO_2, CH_4 and N_2O are considered below.

The global warming potentials of CH_4 and N_2O applied in greenhouse gas inventories refer to the second IPCC assessment report (IPCC 1995):

- 1 g CH_4 equals 21 g CO_2
- 1 g N_2O equals 310 g CO_2

The GHG emissions from stationary combustion are listed in Table 16. The emission from stationary combustion accounts for 57% of the total Danish GHG emission.

The CO_2 emission from stationary combustion plants accounts for 70% of the total Danish CO_2 emission (not including land-use change and forestry). CH_4 accounts for 9% of the total Danish CH_4 emission and N_2O for only 5% of the total Danish N_2O emission.

Table 16 Greenhouse gas emission for the year 2003 [1)].

	CO_2	CH_4	N_2O
	Gg CO_2 equivalent		
1A1 Fuel consumption, Energy industries	31402	330	328
1A2 Fuel consumption, Manufacturing Industries and Construction[1)]	4662	31	46
1A4 Fuel consumption, Other sectors [1)]	5465	160	67
Total emission from stationary combustion plants	**41529**	**521**	**440**
Total Danish emission (gross)	59329	5873	8060
		%	
Emission share for stationary combustion	70	9	5

1) Only stationary combustion sources of the sector is included

CO_2 is the most important GHG pollutant and accounts for 97,7% of the GHG emission (CO_2 eq.). This is a much higher share than for the total Danish GHG emissions where CO_2 only accounts for 81% of the GHG emission (CO_2 eq.).

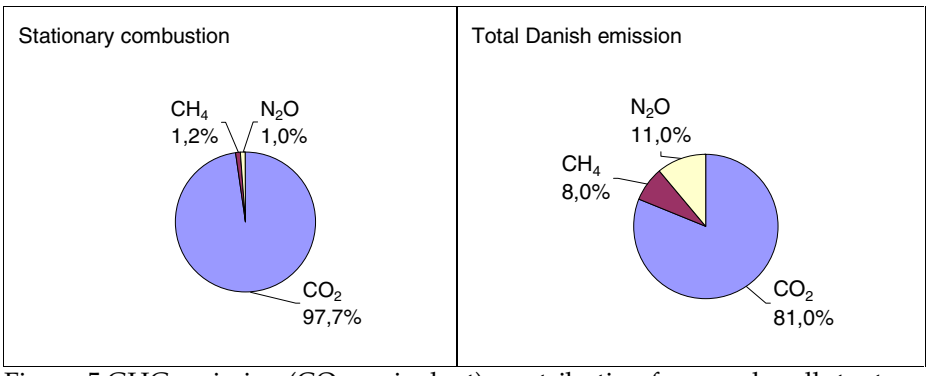


Figure 5 GHG emission (CO_2 equivalent), contribution from each pollutant.

Figure 6 depicts the time-series of GHG emission (CO_2 eq.) from stationary combustion and it can be seen that the GHG emission development follows the CO_2 emission development very closely. Both the CO_2 and the total GHG emission is higher in 2003 than in 1990, CO_2 by 10% and GHG by 11%. However, fluctuations in the GHG emission level are large.

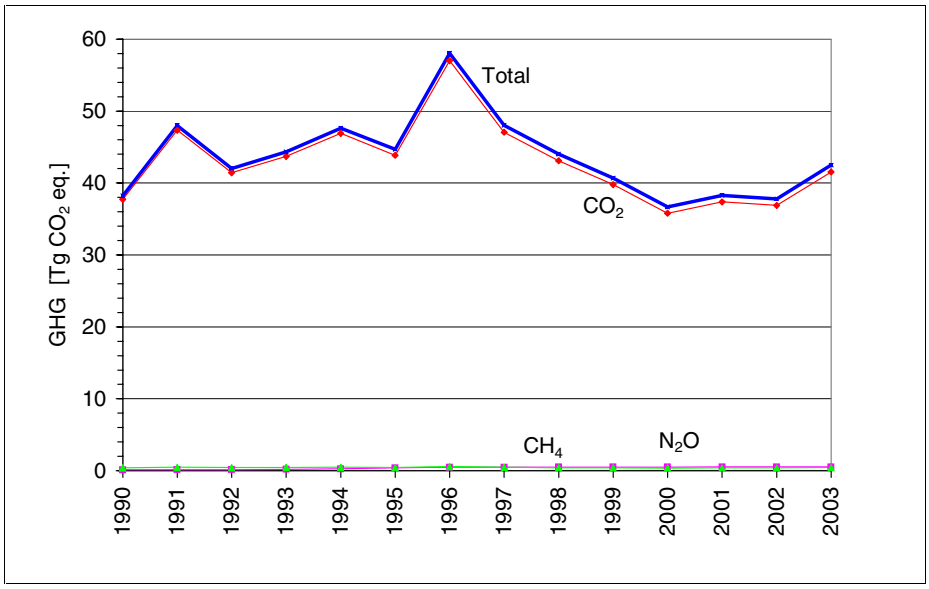


Figure 6 GHG emission time-series for stationary combustion.

The fluctuations in the time-series are mainly a result of electricity import/export activity, but also of outdoor temperature variations from year to year. The fluctuations follow the fluctuations in fuel consumption discussed in Chapter 4.

Figure 7 shows the corresponding time-series for degree days, electricity trade and CO_2 emission. As mentioned in Chapter 4, the Danish Energy Authority estimates a correction of the actual emissions without random variations in electricity imports/exports and in ambient temperature. This emission trend, which is smoothly decreasing, is also illustrated in Figure 7. The corrections are included here to explain the fluctuations in the emission time-series. The GHG emission corrected for electricity import/export and ambient temperature has decreased by 20% since 1990, and the CO_2 emission by 21%.

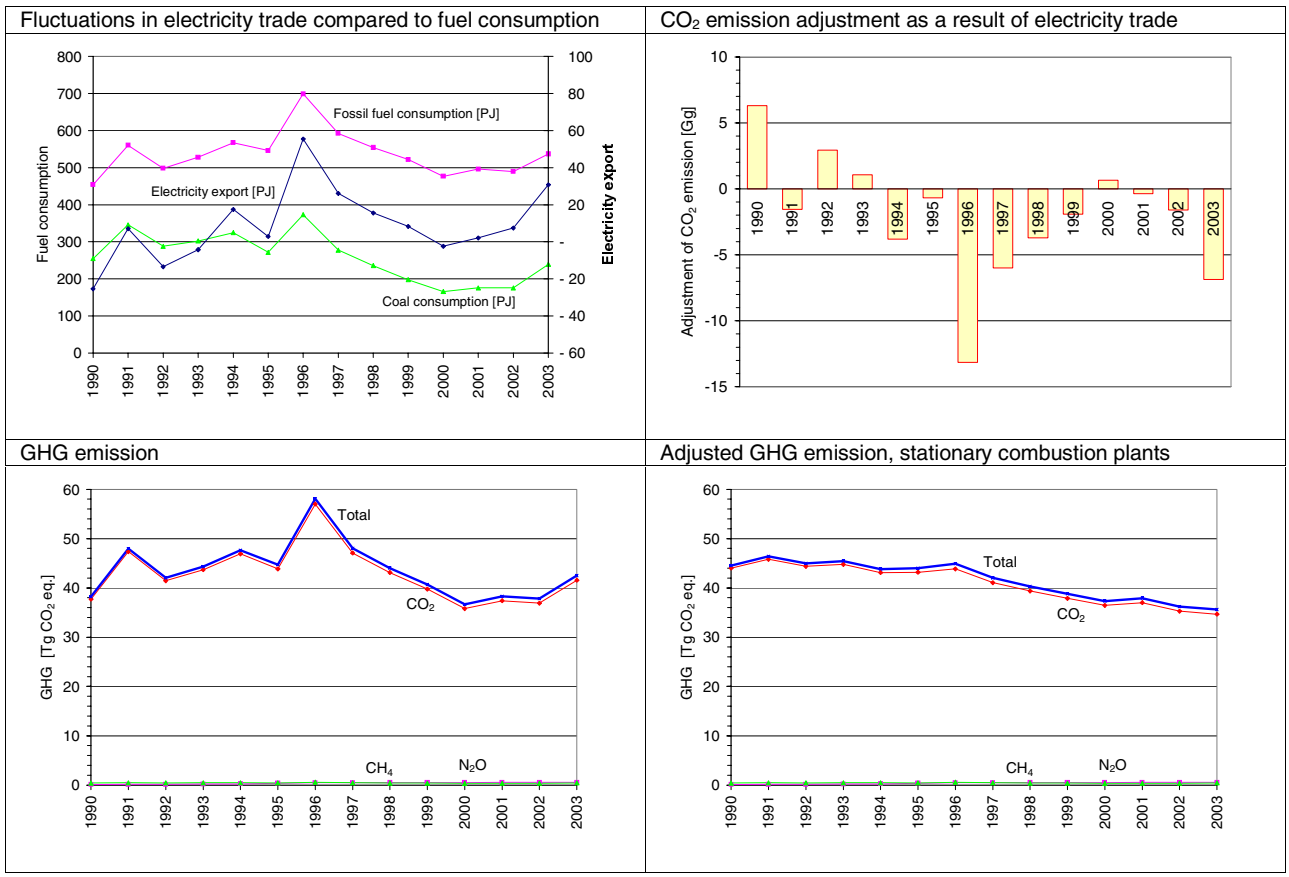


Figure 7 GHG emission time-series for stationary combustion, adjusted for electricity import/export (DEA 2004b).

5.1 CO_2

The CO_2 emission from stationary combustion plants is one of the most important GHG emission sources. Thus the CO_2 emission from stationary combustion plants accounts for 70% of the total Danish CO_2 emission. Table 17 lists the CO_2 emission inventory for stationary combustion plants for 2003. Figure 8 reveals that *Electricity and heat production* accounts for 70% of the CO_2 emission from stationary combustion. This share is somewhat higher than the fossil fuel consumption share for this sector, which is 64% (Figure 1). Other large CO_2 emission sources are industrial plants and residential plants. These are the sectors, which also account for a considerable share of fuel consumption.

Table 17 CO_2 emission from stationary combustion plants 2003 [1)]

CO_2	**2003**	
1A1a Public electricity and heat production	28869	Gg
1A1b Petroleum refining	1013	Gg
1A1c Other energy industries	1520	Gg
1A2 Industry	4662	Gg
1A4a Commercial / Institutional	854	Gg
1A4b Residential	3890	Gg
1A4c Agriculture / Forestry / Fisheries	721	Gg
Total	**41529**	**Gg**

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

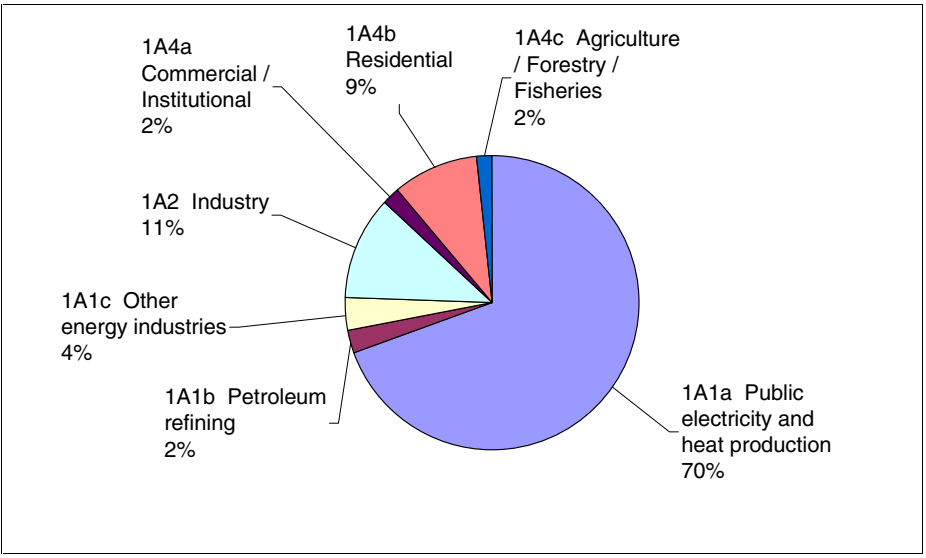


Figure 8 CO_2 emission sources, stationary combustion plants, 2003.

The sector *Electricity and heat production* consists of the SNAP source sectors: *Public power* and *District heating*. The CO_2 emissions from each of these subsectors are listed in Table 18. The most important subsector is power plant boilers >50MW.

Table 18 CO_2 emission from subsectors to *1A1a Electricity and heat production*.

SNAP source	SNAP name	2003	
0101	Public power	0	Gg
010101	Combustion plants ≥ 300MW (boilers)	23365	Gg
010102	Combustion plants ≥ 50MW and < 300 MW (boilers)	939	Gg
010103	Combustion plants <50 MW (boilers)	177	Gg
010104	Gas turbines	2515	Gg
010105	Stationary engines	1561	Gg
0102	District heating plants	-	Gg
010201	Combustion plants ≥ 300MW (boilers)	-	Gg
010202	Combustion plants ≥ 50MW and < 300 MW (boilers)	41	Gg
010203	Combustion plants <50 MW (boilers)	260	Gg
010204	Gas turbines	-	Gg
010205	Stationary engines	10	Gg

CO_2 emission from combustion of biomass fuels is not included in the total CO_2 emission data, because biomass fuels are considered CO_2 neutral. The CO_2 emission from biomass combustion is reported as a memo item in Climate Convention reporting. In 2003 the CO_2 emission from biomass combustion was 9108 Gg.

In Figure 9 the fuel consumption share (fossil fuels) is compared to the CO_2 emission share disaggregated to fuel origin. Due to the higher CO_2 emission factor for coal than oil and gas, the CO_2 emission share from coal combustion is higher than the fuel consumption share. Coal accounts for 45% of the fossil fuel consumption and for 55% of the CO_2 emission. Natural gas accounts for 36% of the fossil fuel consumption but only 27% of the CO_2 emission.

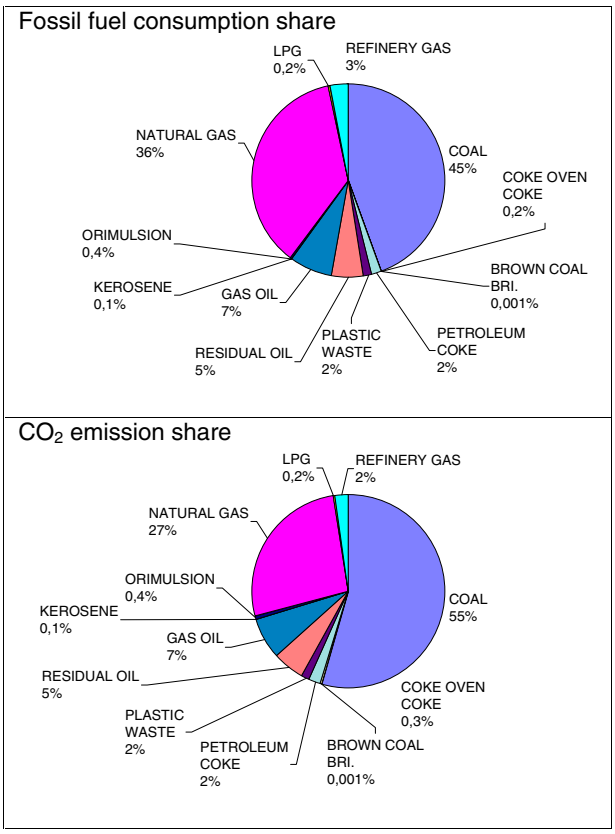


Figure 9 CO_2 emission, fuel origin.

Time-series for CO_2 emission are provided in Figure 10. Despite an increase in fuel consumption of 25% since 1990, CO_2 emission from stationary combustion has increased by only 10% due to of the change in fuel type used.

The fluctuations in total CO_2 emission follow the fluctuations in CO_2 emission from *Electricity and heat production* (Figure 10) and in coal consumption (Figure 11). The fluctuations are a result of electricity import/export activity as discussed in Chapter 5.

Figure 11 compares time-series for fossil fuel consumption and the CO_2 emission. As mentioned above, the consumption of coal has decreased whereas the consumption of natural gas, with a lower CO_2 emission factor, has increased. Total fossil fuel use increased by 18% between 1990 and 2003.

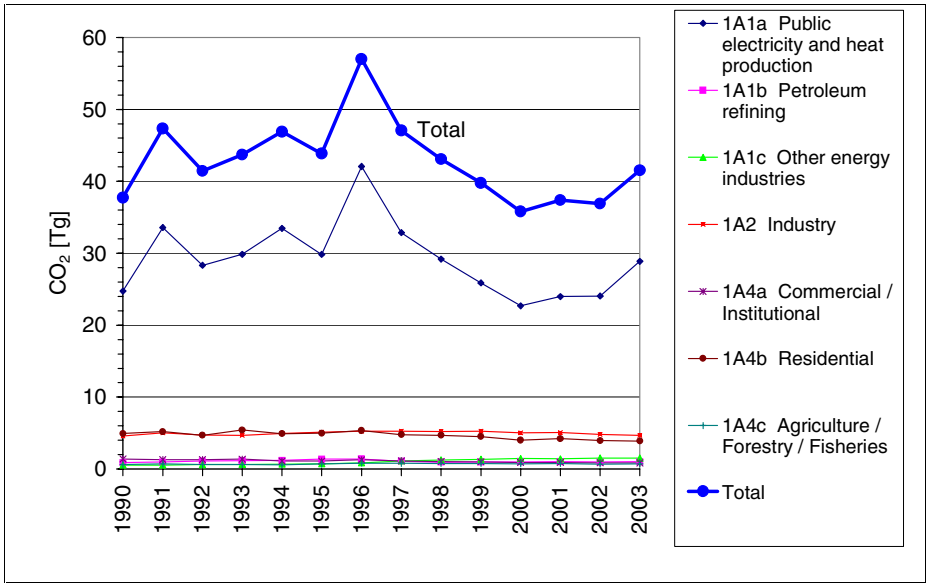


Figure 10 CO_2 emission time-series for stationary combustion plants.

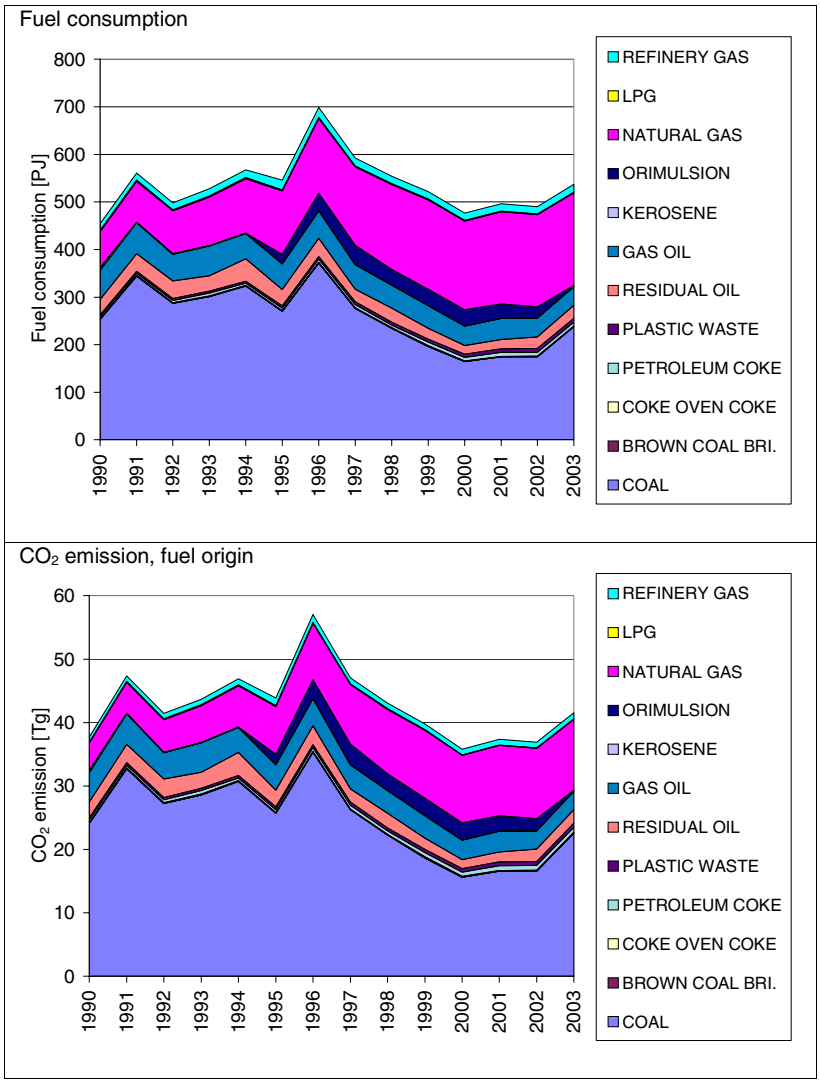


Figure 11 Fossil fuel consumption and CO_2 emission time-series for stationary combustion.

5.2 CH_4

CH_4 emission from stationary combustion plants accounts for 9% of the total Danish CH_4 emission. Table 19 lists the CH_4 emission inventory for stationary combustion plants in 2003. Figure 12 reveals that *Electricity and heat production* accounts for 64% of the CH_4 emission from stationary combustion, this being closely aligned with fuel consumption share.

Table 19 CH_4 emission from stationary combustion plants 2003 [1)].

CH_4	2003	
1A1a Public electricity and heat production	15647	Mg
1A1b Petroleum refining	2	Mg
1A1c Other energy industries	58	Mg
1A2 Industry	1485	Mg
1A4a Commercial / Institutional	961	Mg
1A4b Residential	4562	Mg
1A4c Agriculture / Forestry / Fisheries	2094	Mg
Total	24809	Mg

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

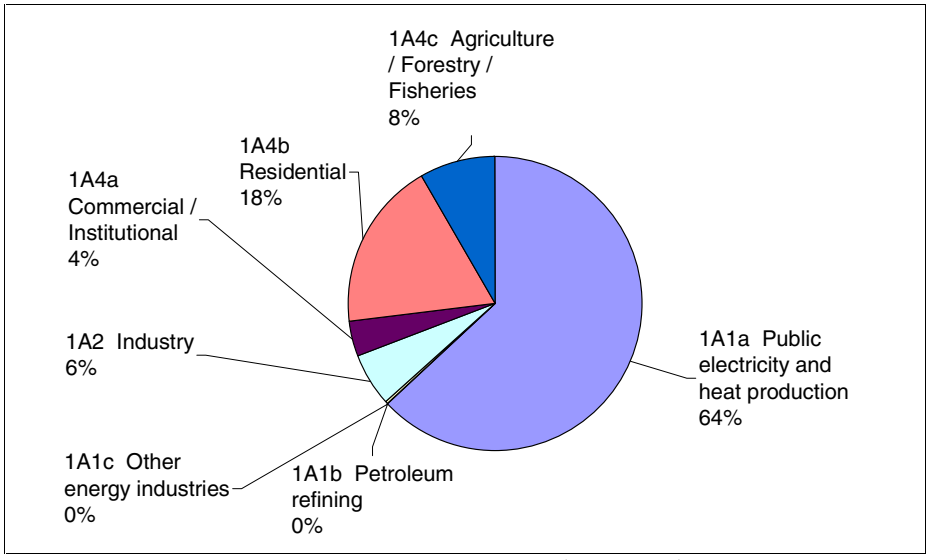


Figure 12 CH_4 emission sources, stationary combustion plants, 2003.

The CH_4 emission factor for reciprocating gas engines is much higher than for other combustion plants due to the continuous ignition/burn-out of the gas. Lean-burn gas engines have an especially high emission factor as discussed in Chapter 4.5.2. A considerable number of lean-burn gas engines are in operation in Denmark and these plants account for 75% of the CH_4 emission from stationary combustion plants (Figure 13). The engines are installed in CHP plants and the fuel used is either natural gas or biogas.

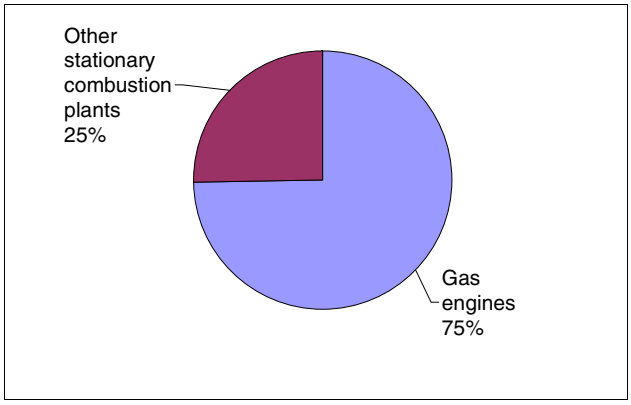


Figure 13 Gas engine CH_4 emission share, 2003.

The CH_4 emission from stationary combustion increased by a factor of 4,3 since 1990 (Figure 14). This results from the considerable number of lean-burn gas engines installed in CHP plants in Denmark in this period. Figure 15 provides time-series for the fuel consumption rate in gas engines and the corresponding increase of CH_4 emission.

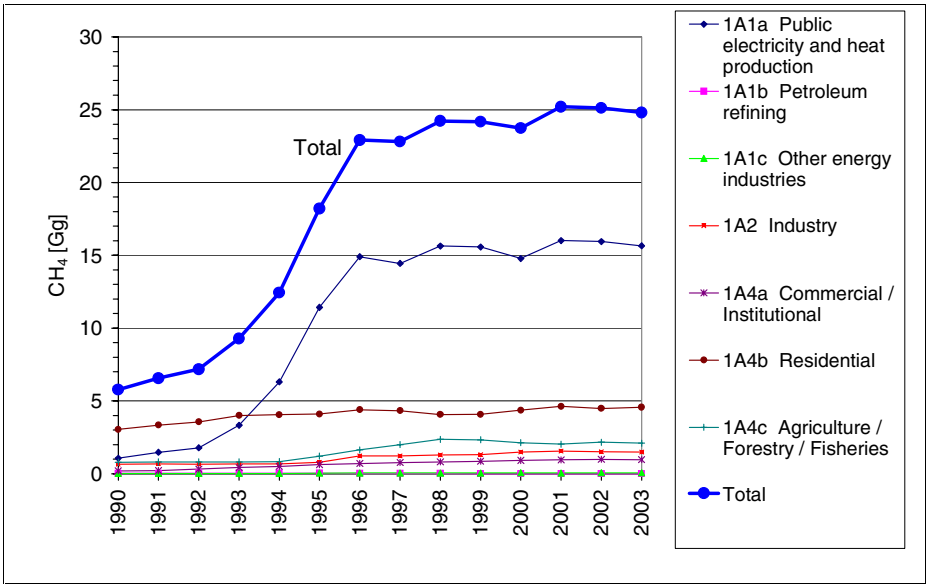


Figure 14 CH_4 emission time-series for stationary combustion plants.

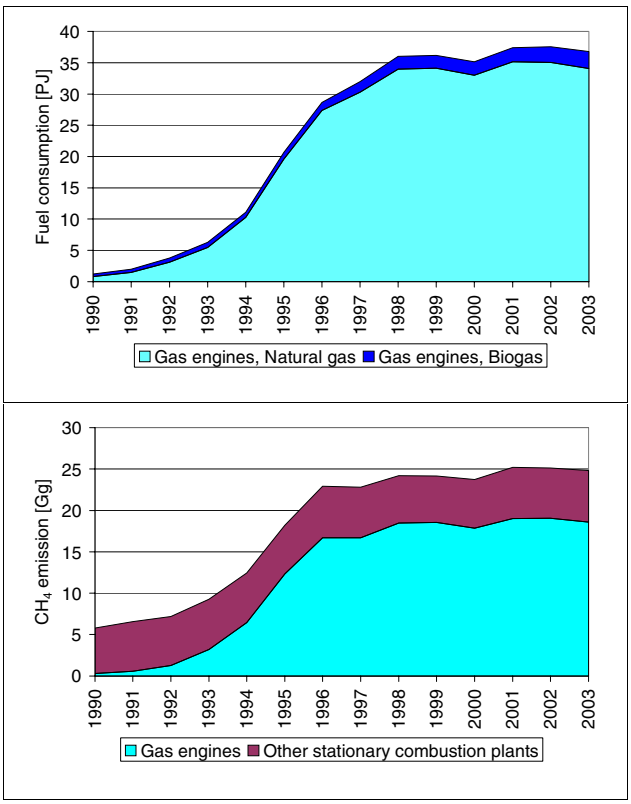


Figure 15 Fuel consumption and CH_4 emission from gas engines, time-series.

5.3 N_2O

The N_2O emission from stationary combustion plants accounts for 5% of the total Danish N_2O emission. Table 20 lists the N_2O emission inventory for stationary combustion plants in the year 2003. Figure 16 reveals that *Electricity and heat production* accounts for 68% of the N_2O emission from stationary combustion. This is only a little higher than the fuel consumption share.

Table 20 N_2O emission from stationary combustion plants 2003 [1)].

N_2O	2003	
1A1a Public electricity and heat production	963	Mg
1A1b Petroleum refining	36	Mg
1A1c Other energy industries	58	Mg
1A2 Industry	149	Mg
1A4a Commercial / Institutional	27	Mg
1A4b Residential	161	Mg
1A4c Agriculture / Forestry / Fisheries	27	Mg
Total	**1420**	Mg

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

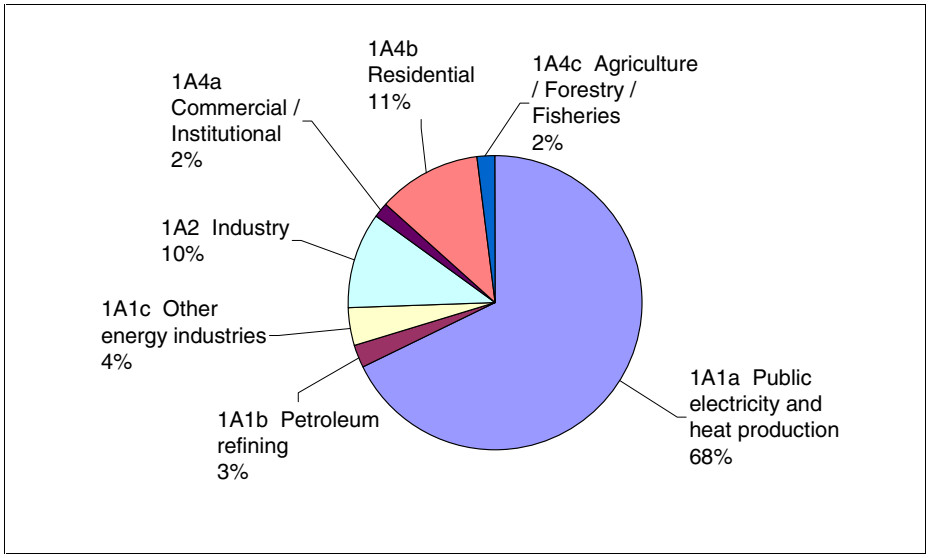


Figure 16 N_2O emission sources, stationary combustion plants, 2003.

Figure 17 shows time-series for N_2O emission. The N_2O emission from stationary combustion increased by 11% from 1990 to 2003, but again fluctuations in emission level due to electricity import/export are considerable.

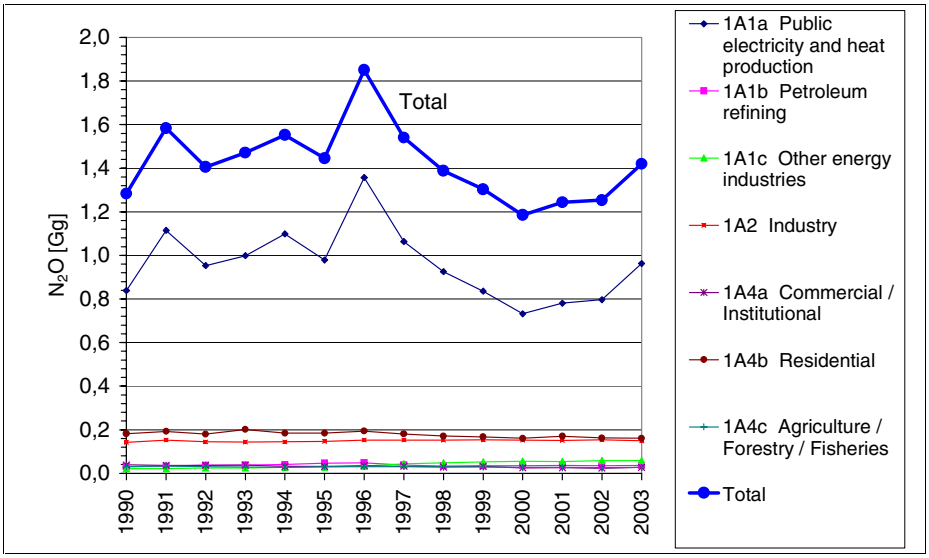


Figure 17 N_2O emission time-series for stationary combustion plants.

6 SO_2, NO_X, NMVOC and CO

The emissions of SO_2, NO_X, NMVOC and CO from Danish stationary combustion plants 2003 are presented in Table 21. The emission of these pollutants is reported to the LRTAP Convention and the pollutants are also included in the report to the Climate Convention.

SO_2 from stationary combustion plants accounts for 87% of the total Danish emission. NO_X, CO and NMVOC account for 41%, 31% and 12% of total Danish emissions, respectively.

Table 21 SO_2, NO_X, NMVOC and CO emission from stationary combustion 2003 [1].

Pollutant	NO_X Gg	CO Gg	NMVOC Gg	SO_2 Gg
1A1 Fuel consumption, Energy industries	64,5	12,6	4,3	17,5
1A2 Fuel consumption, Manufacturing Industries and Construction (Stationary combustion)	13,4	12,3	0,7	5,9
1A4 Fuel consumption, Other sectors (Stationary combustion)	7,7	158,8	13,5	3,6
Total emission from stationary combustion plants	**85,6**	**183,7**	**18,5**	**26,9**
Total Danish emission	209,1	592,5	158,5	31,0
		%		
Emission share for stationary combustion	41	31	12	87

1) Only emissions from stationary combustion plants in the sectors are included

6.1 SO_2

Stationary combustion is the most important emission source for SO_2 accounting for 87% of the total Danish emission. Table 22 and Figure 18 present the SO_2 emission inventory for the stationary combustion subsectors.

Electricity and heat production is the largest emission source accounting for 63% of the emission, however, the SO_2 emission share is almost the same as the fuel consumption share for this sector, which is 64%. This is possibly due to effective flue gas desulphurisation equipment installed in power plants combusting coal. Figure 19 shows the SO_2 emission from *Electricity and heat production* on a disaggregated level. Power plants >300MW_{th} represent the main emission source, accounting for 83% of the emission.

The fuel origin of the SO_2 emission is shown in Figure 20. Disaggregation of total emissions from point sources using several fuels is based on emission factors. As expected the emission from natural gas is negligible and the emission from coal combustion is considerable (61%). Most remarkably is the emission share from residual oil combustion, which is 20%. This emission is very high compared to the fuel consumption share of 4%. The emission factor for residual oil combusted in the industrial sector is uncertain because knowledge of the applied flue gas cleaning technology in this sector is insufficient.

The SO_2 emission from *Industry* is 22%, a remarkably high emission share compared with fuel consumption. The main emission sources in the industrial sector are combustion of coal and residual oil, but emissions from the cement industry is also a considerable emission source. Some years ago, SO_2 emission

from the industrial sector only accounted for a small portion of the total emission, but as a result of reduced emissions from power plants the share has now increased.

Time-series for SO_2 emission from stationary combustion are shown in Figure 21. The SO_2 emission from stationary combustion plants has decreased by 94% from 1980 and 78% from 1995. The large emission decrease is mainly a result of the reduced emission from *Electricity and heat production*, made possible due to installation of desulphurisation plants and due to the use of fuels with lower sulphur content. Despite the considerable reduction in emission from electricity and heat production plants, these still account for 63% of the total emission from stationary combustion, as mentioned above. The emission from other sectors also decreased considerably since 1980.

Table 22 SO_2 emission from stationary combustion plants 2003 [1)].

SO_2	2003	
1A1a Public electricity and heat production	16958	Mg
1A1b Petroleum refining	495	Mg
1A1c Other energy industries	9	Mg
1A2 Industry	5851	Mg
1A4a Commercial / Institutional	364	Mg
1A4b Residential	1738	Mg
1A4c Agriculture / Forestry / Fisheries	1511	Mg
Total	26924	Mg

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

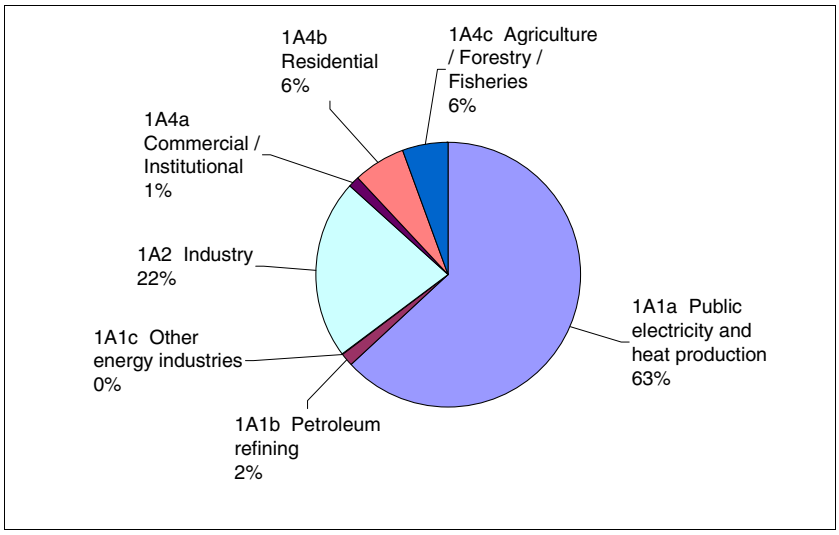


Figure 18 SO_2 emission sources, stationary combustion plants, 2003.

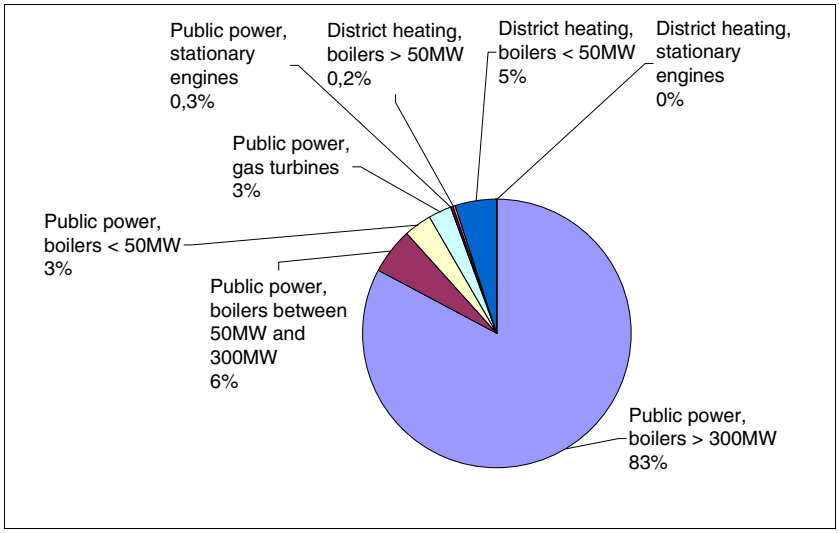


Figure 19 Disaggregated SO_2 emissions from *Energy and heat production.*

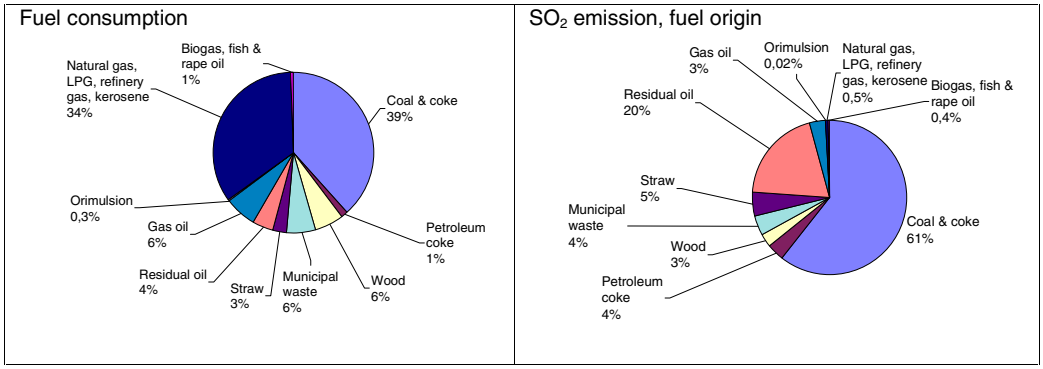


Figure 20 Fuel origin of the SO_2 emission from stationary combustion plants.

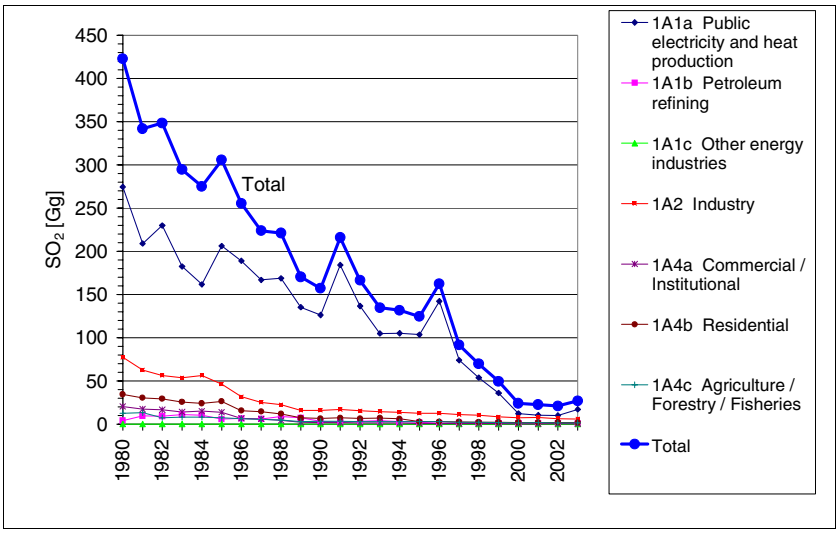


Figure 21 SO_2 emission time-series for stationary combustion.

6.2 NO_x

Stationary combustion accounts for 41% of the total Danish NO_x emission. Table 23 and Figure 22 show the NO_x emission inventory for stationary combustion subsectors.

Electricity and heat production is the largest emission source accounting for 65% of the emission from stationary combustion plants. Power plants >50MW_{th} are the main emission source in this sector accounting for 78% of the emission.

Figure 23 shows fuel origin of the NO_x emission from sector 1A1a Electricity and heat production. The fuel origin of the NO_x emission is almost the same as the fuel consumption in this plant category. The emission from coal combustion is, however, somewhat higher than the fuel consumption share.

Industrial combustion plants are also an important emission source accounting for 16% of the emission. The main industrial emission source is cement production, accounting for 63% of the emission.

Residential plants accounts for 6% of the NO_x emission. The fuel origin of this emission is mainly wood, gas oil and natural gas accounting for 37%, 29% and 23% of the residential plant emission, respectively.

Time-series for NO_x emission from stationary combustion are shown in Figure 24. NO_x emission from stationary combustion plants has decreased by 43% from 1985 and 23% 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 in the time-series follow the fluctuations in *Electricity and heat production*, which, in turn, result from electricity trade fluctuations.

Table 23 NO_x emission from stationary combustion plants 2003 [1)].

	2003	
1A1a Public electricity and heat production	56247	Mg
1A1b Petroleum refining	1645	Mg
1A1c Other energy industries	6615	Mg
1A2 Industry	13419	Mg
1A4a Commercial / Institutional	1245	Mg
1A4b Residential	4865	Mg
1A4c Agriculture / Forestry / Fisheries	1544	Mg
Total	**85581**	Mg

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

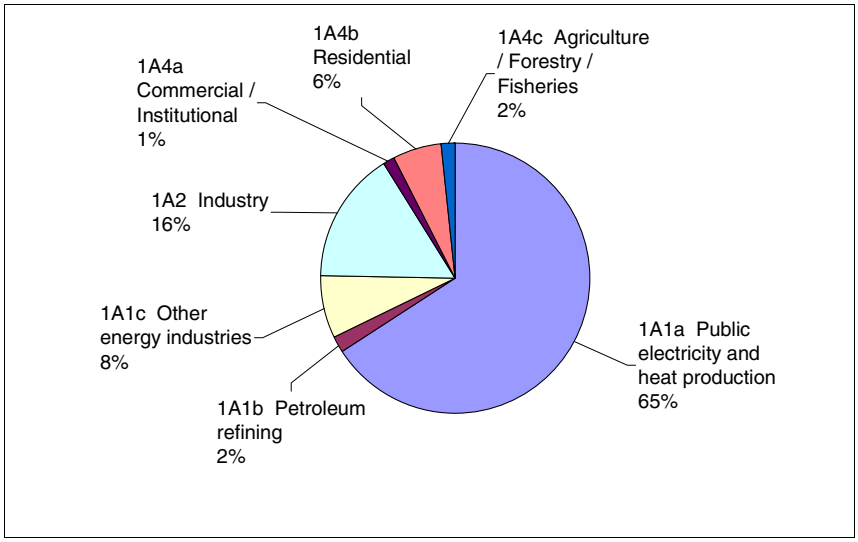


Figure 22 NO_x emission sources, stationary combustion plants, 2003.

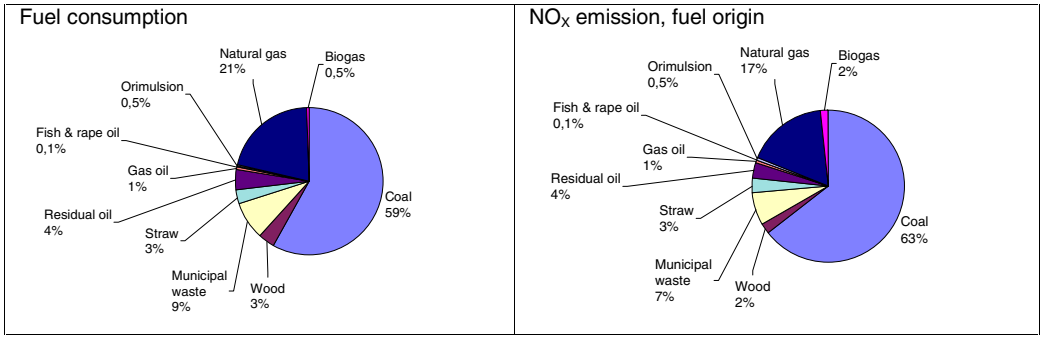


Figure 23 NO_x emissions from 1A1a Electricity and heat production, fuel origin.

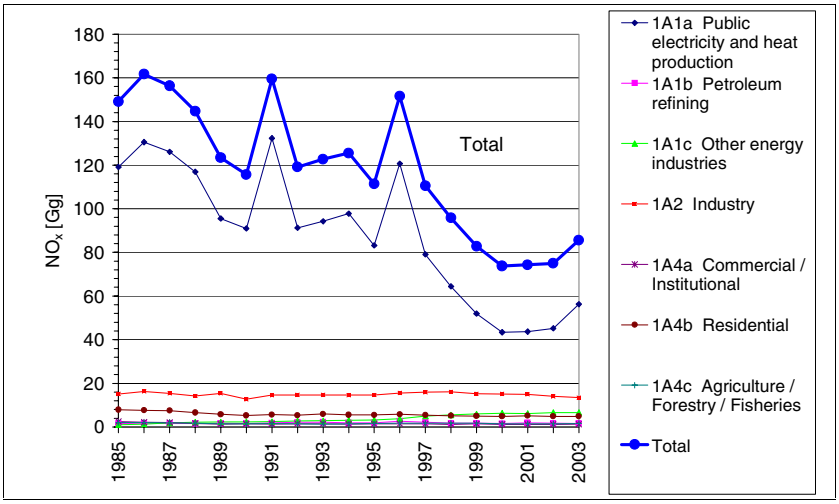


Figure 24 NO_x emission time-series for stationary combustion.

6.3 NMVOC

Stationary combustion plants account for 12% of the total Danish NMVOC emission. Table 24 and Figure 25 present the NMVOC emission inventory for the stationary combustion subsectors.

Residential plants are the largest emission source accounting for 60% of the total emission from stationary combustion plants. For residential plants NMVOC is mainly emitted from wood and straw combustion, see Figure 26.

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 26). The gas engines are either natural gas or biogas fuelled.

Time-series for NMVOC emission from stationary combustion are shown in Figure 27. The emission has increased by 43% from 1985 and 15% from 1995. The increased emission is mainly a result of the increased use of lean-burn gas engines in CHP plants as discussed in Chapter 7.2.

The emission from residential plants is 23% higher in 2003 than in 1990, but the NMVOC emission from wood combustion almost doubled since 1990 due to increased wood consumption. However the emission from straw combustion in farmhouse boilers has decreased over this period.

The use of wood in residential boilers and stoves is relatively low in 1998-99 resulting in a lower emission level these years.

Table 24 NMVOC emission from stationary combustion plants 2003 [1)].

	2003	
1A1a Public electricity and heat production	4222	Mg
1A1b Petroleum refining	2	Mg
1A1c Other energy industries	39	Mg
1A2 Industry	721	Mg
1A4a Commercial / Institutional	751	Mg
1A4b Residential	11115	Mg
1A4c Agriculture / Forestry / Fisheries	1629	Mg
Total	18478	Mg

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

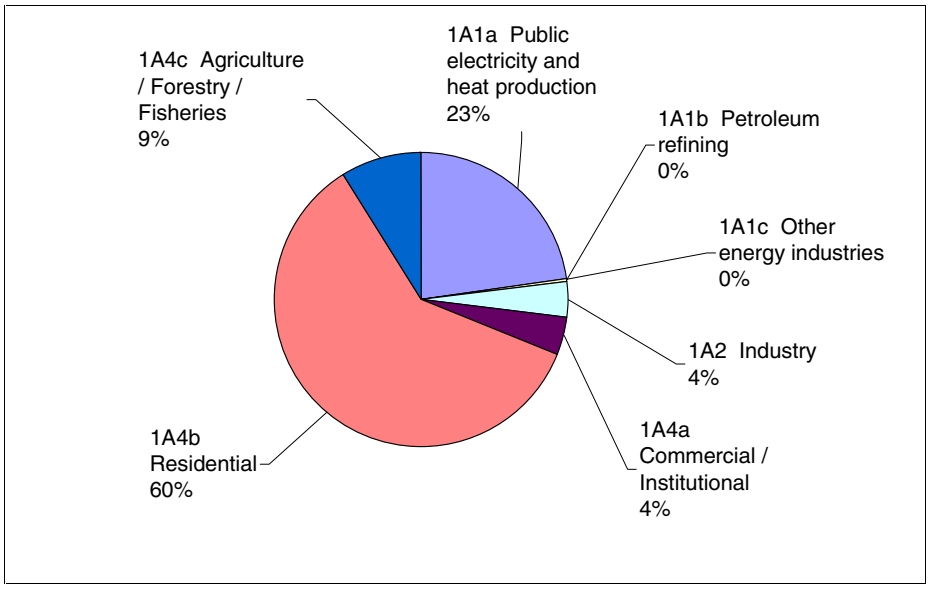


Figure 25 NMVOC emission sources, stationary combustion plants, 2003.

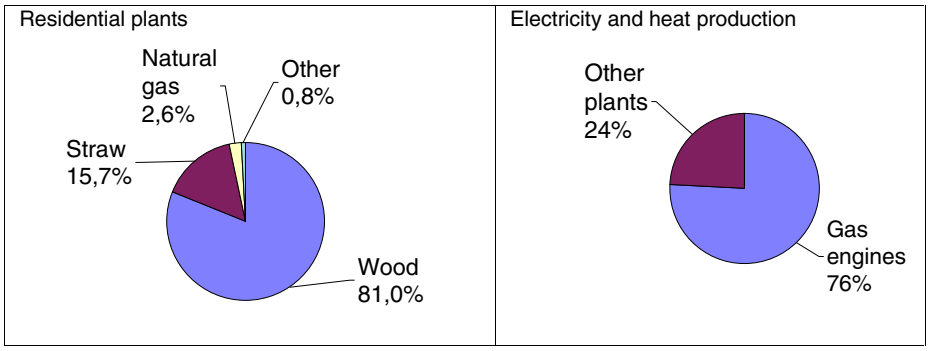


Figure 26 NMVOC emission from residential plants and from electricity and heat production, 2003.

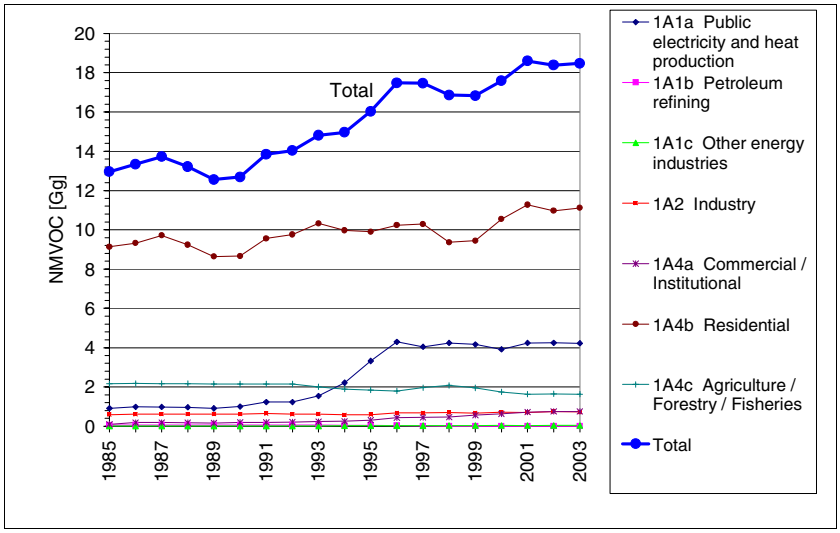


Figure 27 NMVOC emission time-series for stationary combustion.

6.4 CO

Stationary combustion accounts for 31% of the total Danish CO emission. Table 25 and Figure 28 presents the CO emission inventory for stationary combustion subsectors.

Residential plants are the largest emission source, accounting for 80% of the emission. Wood combustion accounts for 90% of the emission from residential plants, see Figure 29. This is 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 are shown in Figure 30. The emission has increased by 2% from 1985 and decreased 3% from 1995. The time-series for CO from stationary combustion plants follows the time-series for CO emission from residential plants.

The consumption of wood in residential plants has increased by 68% since 1990 leading to an increase in the CO emission. The increase in CO emission from residential plants is lower than the increase in wood consumption, because CO emission from straw-fired farmhouse boilers has decreased consid-

erably. Both the annual straw consumption in residential plants and the CO emission factor for farmhouse boilers have decreased.

Table 25 CO emission from stationary combustion plants 2003 [1)].

	2003	
1A1a Public electricity and heat production	12205	Mg
1A1b Petroleum refining	242	Mg
1A1c Other energy industries	183	Mg
1A2 Industry	12308	Mg
1A4a Commercial / Institutional	937	Mg
1A4b Residential	149242	Mg
1A4c Agriculture / Forestry / Fisheries	8599	Mg
Total	**183715**	Mg

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

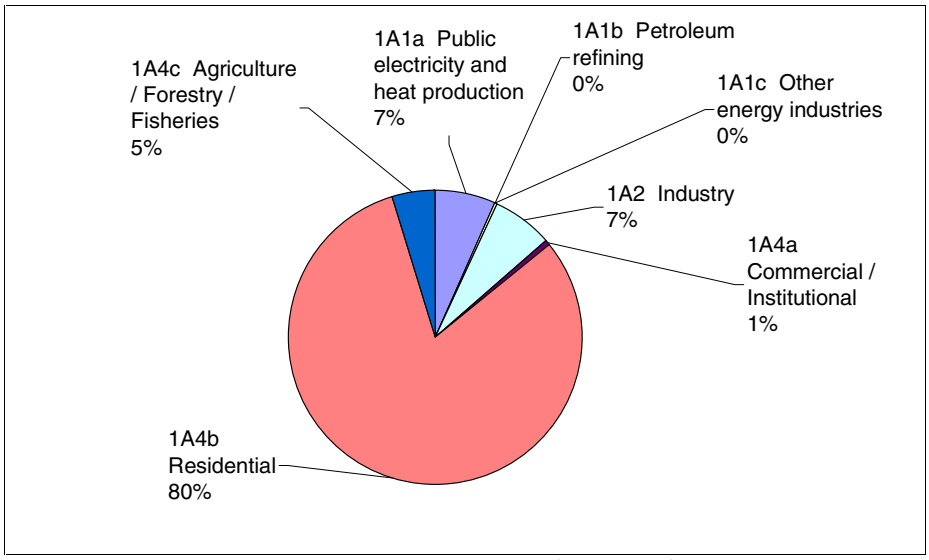


Figure 28 CO emission sources, stationary combustion plants, 2003.

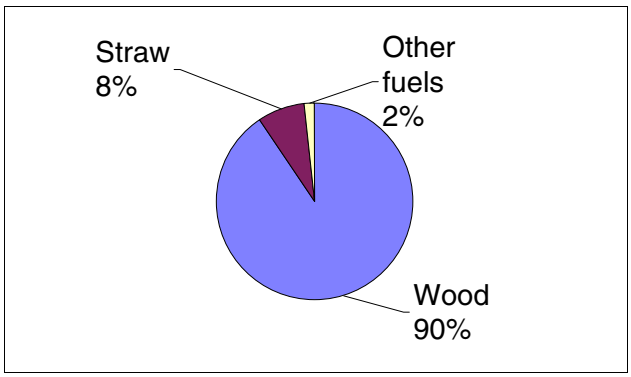


Figure 29 CO emission sources, residential plants, 2003.

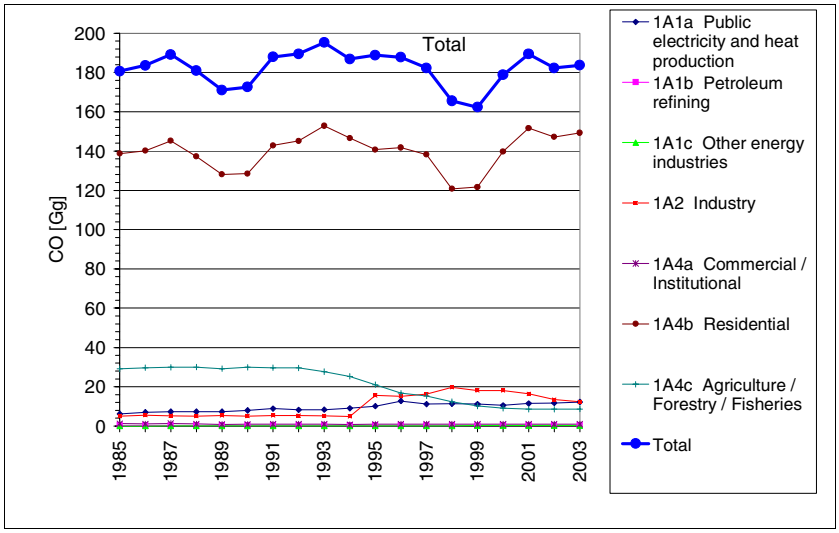


Figure 30 CO emission time-series for stationary combustion.

7 Particulate matter (PM)

The emission of total suspended particulates (TSP), PM_{10} and $PM_{2.5}$ from Danish stationary combustion plants 2003 is presented in Table 26. The PM emission is reported to the LRTAP Convention.

To date, only PM emissions from stationary combustion, transport, agriculture and part of the industrial sector have been included in the Danish inventory. TSP from stationary combustion accounts for 35% of the total Danish emission. The emission shares for PM_{10} and $PM_{2.5}$ are 44% and 56%, respectively.

Table 26 Danish PM emissions 2003.

Pollutant	TSP Mg	PM_{10} Mg	$PM_{2.5}$ Mg
1A1 Fuel combustion, Energy industries	1432	1141	953
1A2 Fuel combustion, Manufacturing Industries and Construction (Stationary combustion) 1)	1023	683	407
1A4 Fuel combustion, Other sectors (Stationary combustion) 1)	12323	11683	11048
Total emission from stationary combustion plants	**14779**	**13507**	**12409**
Total Danish emission (gross)	42685	30497	22243
		%	
Emission share for stationary combustion	35	44	56

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

Table 27 and Figure 31 show the PM emission inventory for the stationary combustion subsectors. Residential plants are the largest emission source accounting for 84% of the $PM_{2.5}$ emission from stationary combustion plants.

The primary sources of PM emissions 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 78% of the $PM_{2.5}$ emission from stationary combustion is emitted from residential wood combustion. This corresponds to 43% of the overall Danish emission. A literature review (Nielsen et al. 2003) and a Nordic Project (Sternhufvud et al. 2004) has demonstrated that the emission factor uncertainty for residential combustion of wood in stoves and boilers is extremely high.

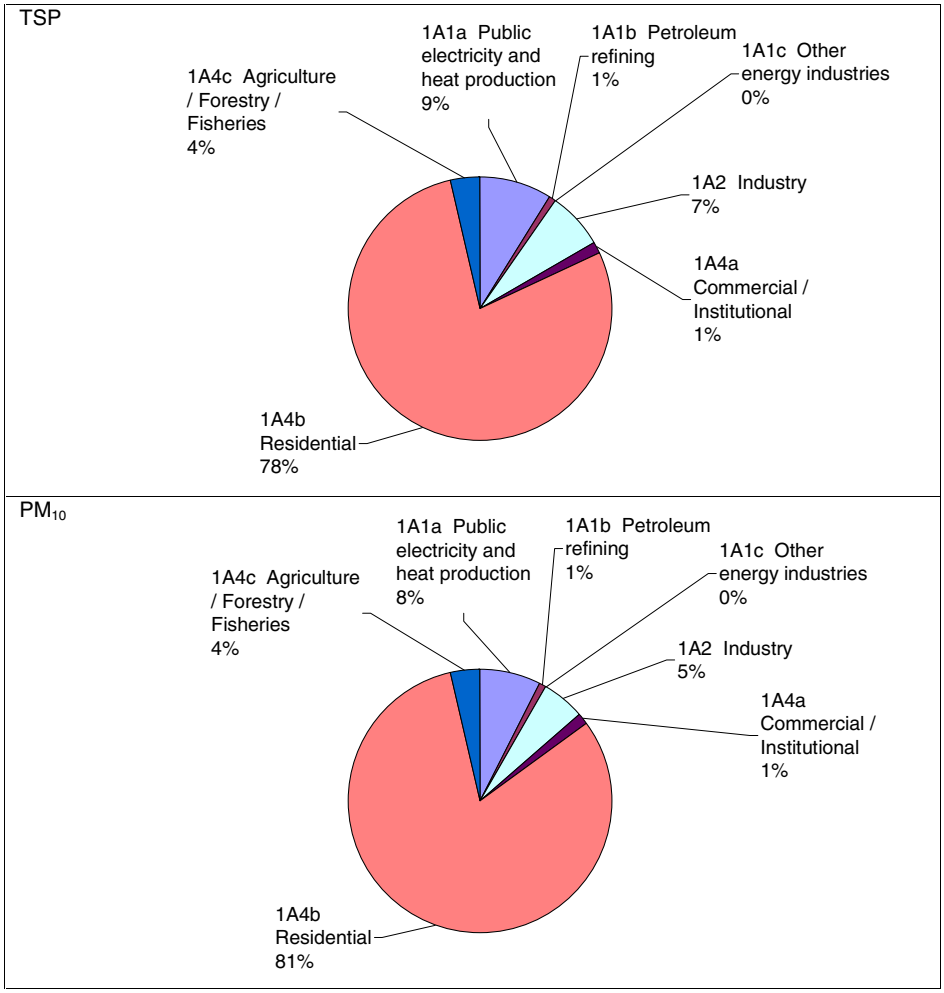
In Figure 32 the fuel consumption and the $PM_{2.5}$ emission of residential plants is shown. Wood combustion accounts for 92% of the $PM_{2.5}$ emission from residential plants in spite of the limited wood consumption share.

Emission inventories for PM have only been reported for the years 2000-2003 and the short time-series for TSP, PM_{10} and $PM_{2.5}$ emission is shown in Figure 33.

Table 27 PM emission from stationary combustion plants, 2003 [1].

	TSP	PM_{10}	$PM_{2.5}$	
1A1a Public electricity and heat production	1301	1020	837	Mg
1A1b Petroleum refining	128	119	115	Mg
1A1c Other energy industries	3	2	1	Mg
1A2 Industry	1023	683	407	Mg
1A4a Commercial / Institutional	192	185	172	Mg
1A4b Residential	11601	11005	10417	Mg
1A4c Agriculture / Forestry / Fisheries	529	493	459	Mg
Total	**14779**	**13507**	**12409**	Mg

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



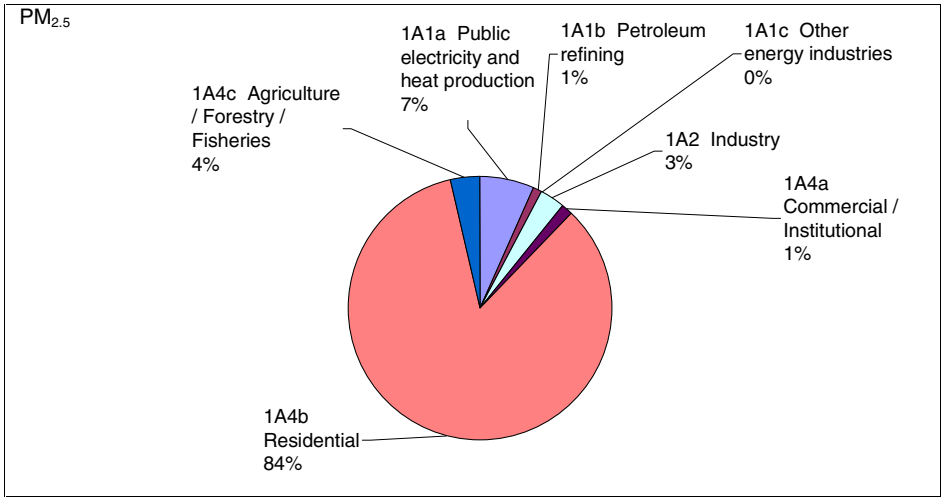


Figure 31 PM emission sources, stationary combustion plants, 2003.

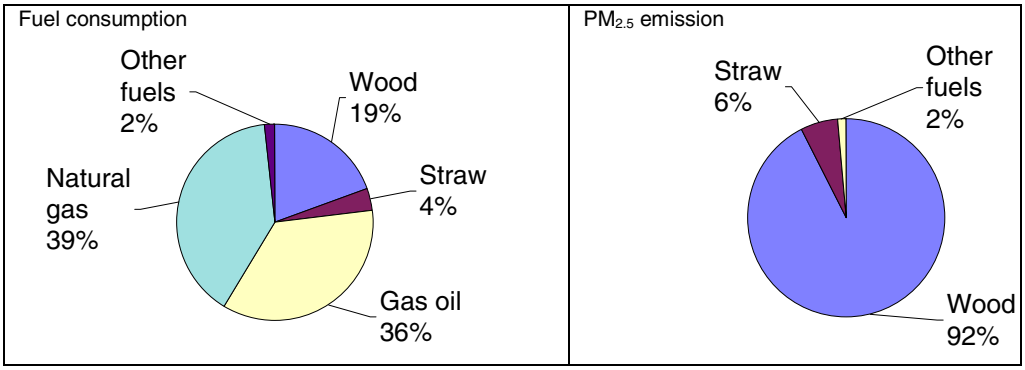


Figure 32 Fuel consumption and $PM_{2.5}$ emission from residential plants.

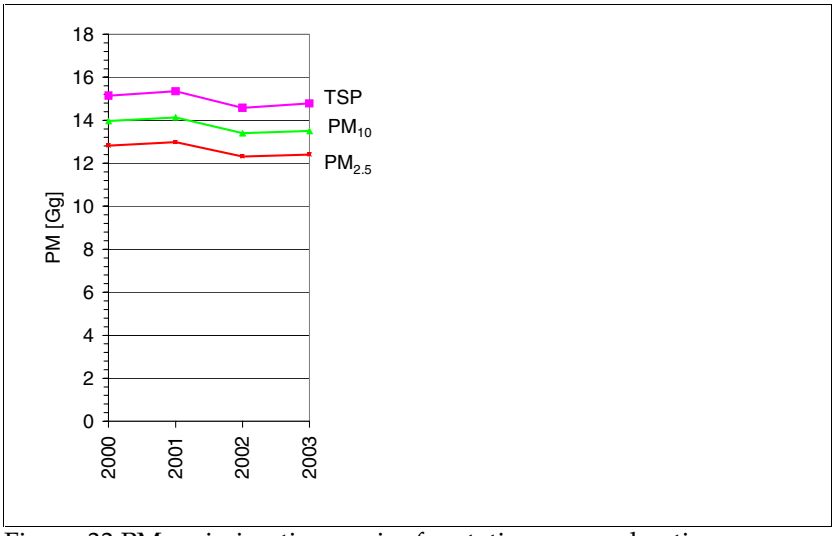


Figure 33 PM emission time-series for stationary combustion.

8 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 2003 emissions are presented in Table 28.

Stationary combustion plants are the most important emission sources for heavy metals. For Cu the emission share from stationary combustion plants is 11%, but for all other heavy metals the emission share is more than 70%, see Table 28.

Table 28 The emission of heavy metals in 2003, 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	1,91	0,21	0,72	0,46	0,50	0,62	3,33	1,03	13,34
1A2 Fuel combustion, Manufacturing Industries and Construction (Stationary combustion)	1,15	0,17	0,24	0,19	0,37	0,18	4,68	0,79	1,54
1A4 Fuel combustion, Other sectors (Stationary combustion)	0,33	0,15	0,27	0,07	0,11	0,22	0,82	0,17	3,03
Total emission from stationary combustion plants	**3,39**	**0,53**	**1,22**	**0,72**	**0,98**	**1,01**	**8,83**	**1,99**	**17,91**
Total Danish emission	4,66	0,58	1,24	0,76	1,23	8,80	10,57	2,11	23,27
Emission share for stationary combustion	73%	91%	99%	95%	80%	11%	84%	94%	77%

Table 29 and Figure 34 present 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 55%, 38% and 58% of the emission of the priority metals Pb, Cd and Hg, respectively.

Table 30 presents the emission share for the two most important emission source categories: Power plants >25MW_e and municipal waste incineration plants.

Table 29 Heavy metal emission from stationary combustion plants, 2003 [1].

	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn	
1A1a Public electricity and heat production	446	203	473	603	712	2743	1885	1016	13336	kg
1A1b Petroleum refining	13	12	30	12	4	582	21	11	3	kg
1A1c Other energy industries	0	0	0	0	0	0	0	0	0	kg
1A2 Industry	193	168	368	177	237	4684	1154	791	1542	kg
1A4a Commercial / Institutional	15	20	44	57	94	169	154	19	554	kg
1A4b Residential	35	111	30	140	155	52	129	130	2392	kg
1A4c Agriculture / Forestry / Fisheries	21	15	38	23	24	600	43	24	85	kg
Total	**722**	**529**	**984**	**1012**	**1225**	**8831**	**3387**	**1992**	**17912**	**kg**

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

Table 30 Heavy metal emission share for large power plants and municipal waste incineration plants, 2003.

Pollutant	Emission share of plant category	
	Municipal waste incineration, CHP and district heating	Power plants >25MW$_e$
As	30%	17%
Cd	21%	2%
Cr	14%	24%
Cu	33%	13%
Hg	27%	15%
Ni	3%	8%
Pb	38%	7%
Se	0%	49%
Zn	58%	1%

Figure 34 Heavy metal emission sources, stationary combustion plants, 2003.

Time-series for heavy metal emissions are provided in Figure 35. Heavy metal emissions have decreased considerably since 1990, see Table 31. Emissions have decreased despite increased incineration of municipal waste. This has been made possible due to installation and improved performance of gas cleaning devices in waste incineration plants and also in large power plants, the latter a further important emission source.

The estimated 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 has potentially been overestimated.

Table 31 Decrease in heavy metal emission 1990-2003.

Pollutant	Decrease since 1990
As	50%
Cd	50%
Cr	84%
Cu	72%
Hg	60%
Ni	59%
Pb	78%
Se	54%
Zn	7%

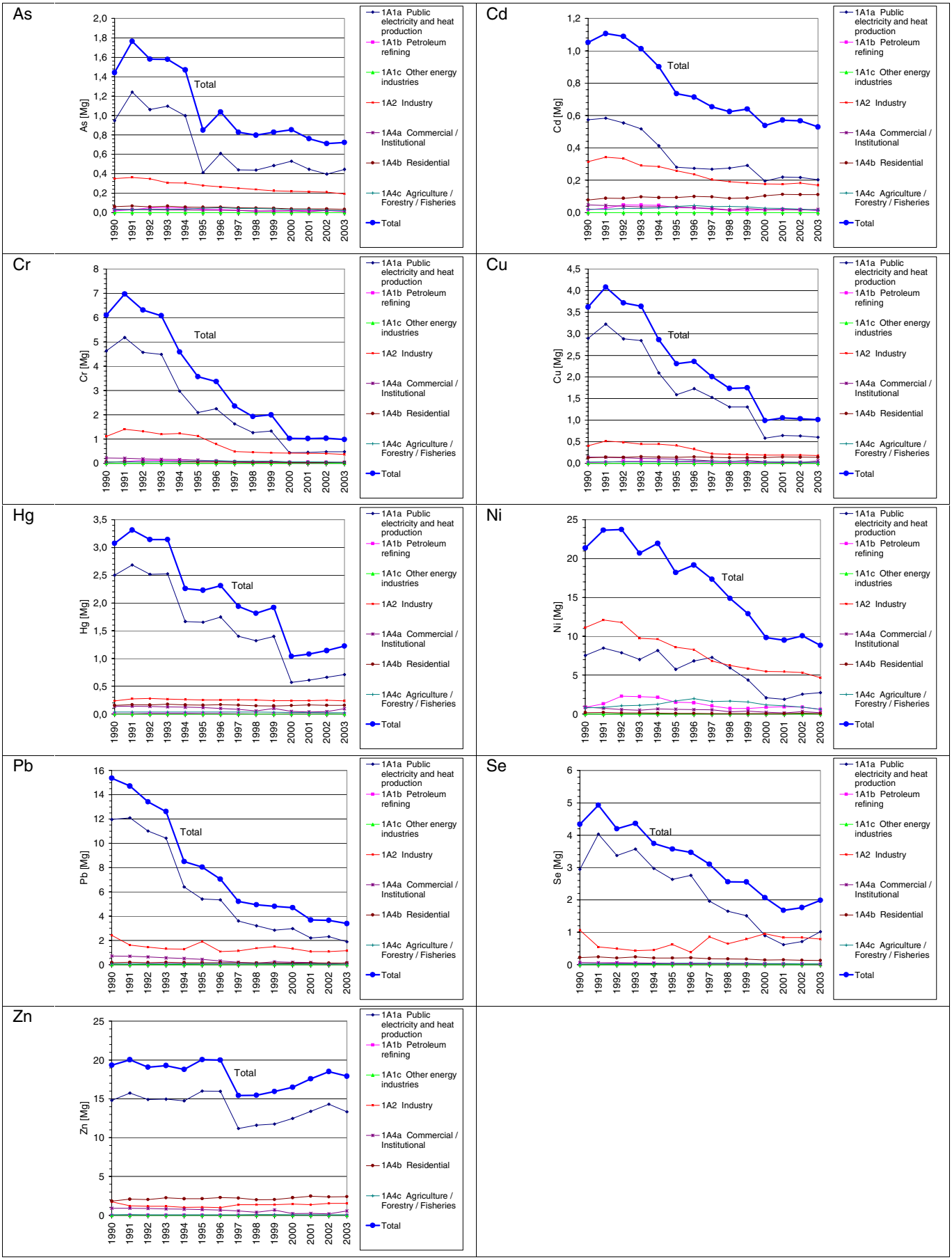


Figure 35 Heavy metal emission time-series, stationary combustion plants.

9 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 inventories for PAH are presented in Table 32. Stationary combustion plants account for more than 90% of the PAH emissions.

Table 32 The emission for the year 2003 reported to the LRTAP Convention in 2004.

Pollutant	Benzo(a)-pyrene Mg	Benzo(b)fluo-ranthene Mg	Benzo(k)fluo-ranthene Mg	Indeno(1,2,3-c,d)pyrene Mg
1A1 Fuel combustion, Energy industries	0,01	0,03	0,01	0,01
1A2 Fuel combustion, Manufacturing Industries and Construction (Stationary combustion)	0,03	0,09	0,02	0,01
1A4 Fuel combustion, Other sectors (Stationary combustion)	2,88	3,74	1,22	2,14
Total emission from stationary combustion plants	**2,91**	**3,87**	**1,25**	**2,15**
Total Danish emission (gross)	2,97	3,95	1,34	2,22
Emission share for stationary combustion	98%	98%	94%	97%

Table 33 and Figure 37 present 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 98% of the emission in residential plants, see Figure 36.

Time-series for PAH emission are presented in Figure 38. 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 provided in Figure 38.

Table 33 PAH emission from stationary combustion plants, 2003.

	Benzo(a)-pyrene Mg	Benzo(b)-fluoranthene Mg	Benzo(k)-fluoranthene Mg	Indeno(1,2,3-c,d)pyrene Mg
1A1a Public electricity and heat production	8	32	15	8
1A1b Petroleum refining	0	0	0	0
1A1c Other energy industries	0	0	0	0
1A2 Industry	26	92	16	7
1A4a Commercial / Institutional	165	217	72	117
1A4b Residential	2574	3372	1124	1816
1A4c Agriculture / Forestry / Fisheries	140	153	27	205
Total	**2913**	**3867**	**1254**	**2154**

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

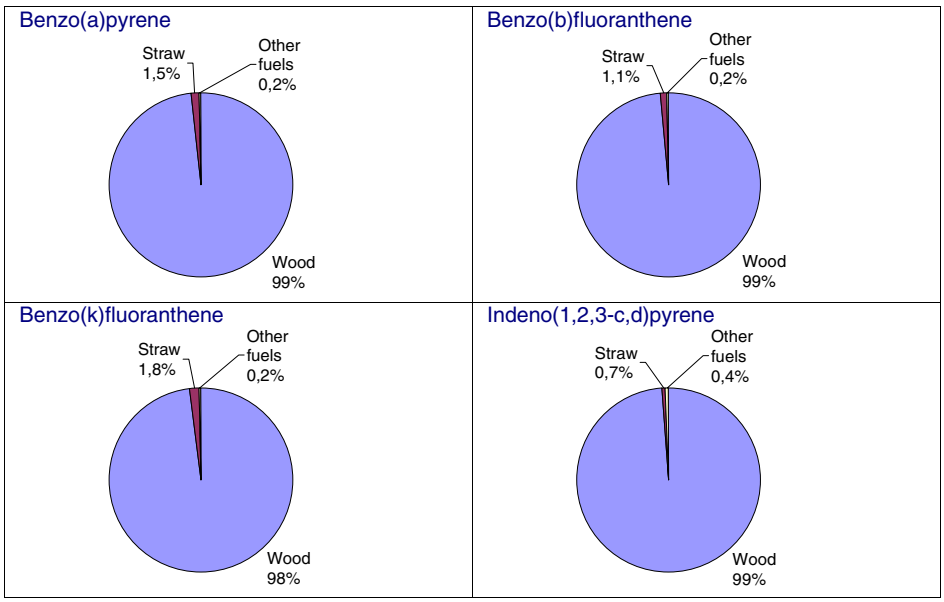


Figure 36 PAH emission from residential combustion plants (stationary), fuel origin.

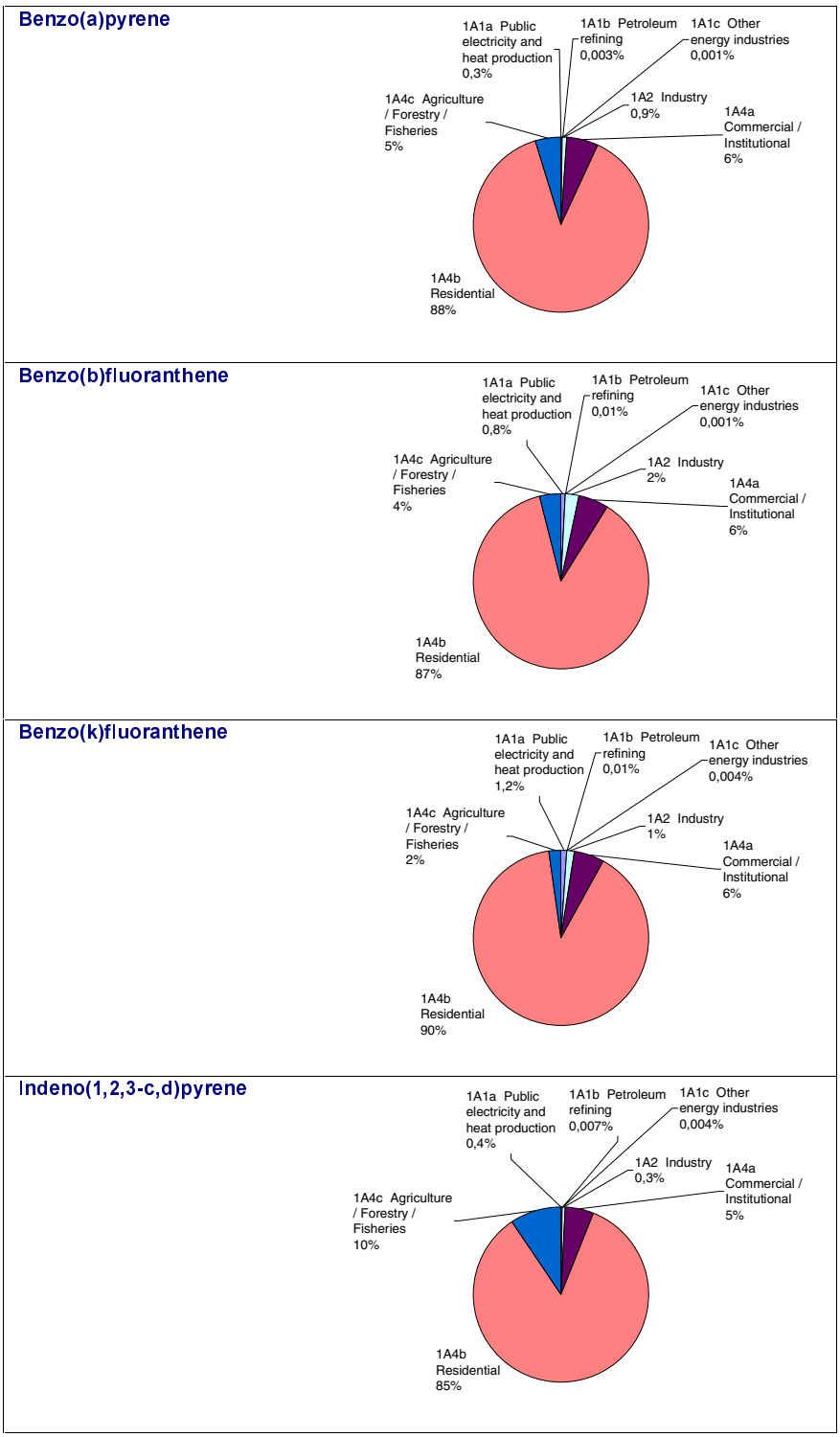


Figure 37 PAH emission sources, stationary combustion plants, 2003.

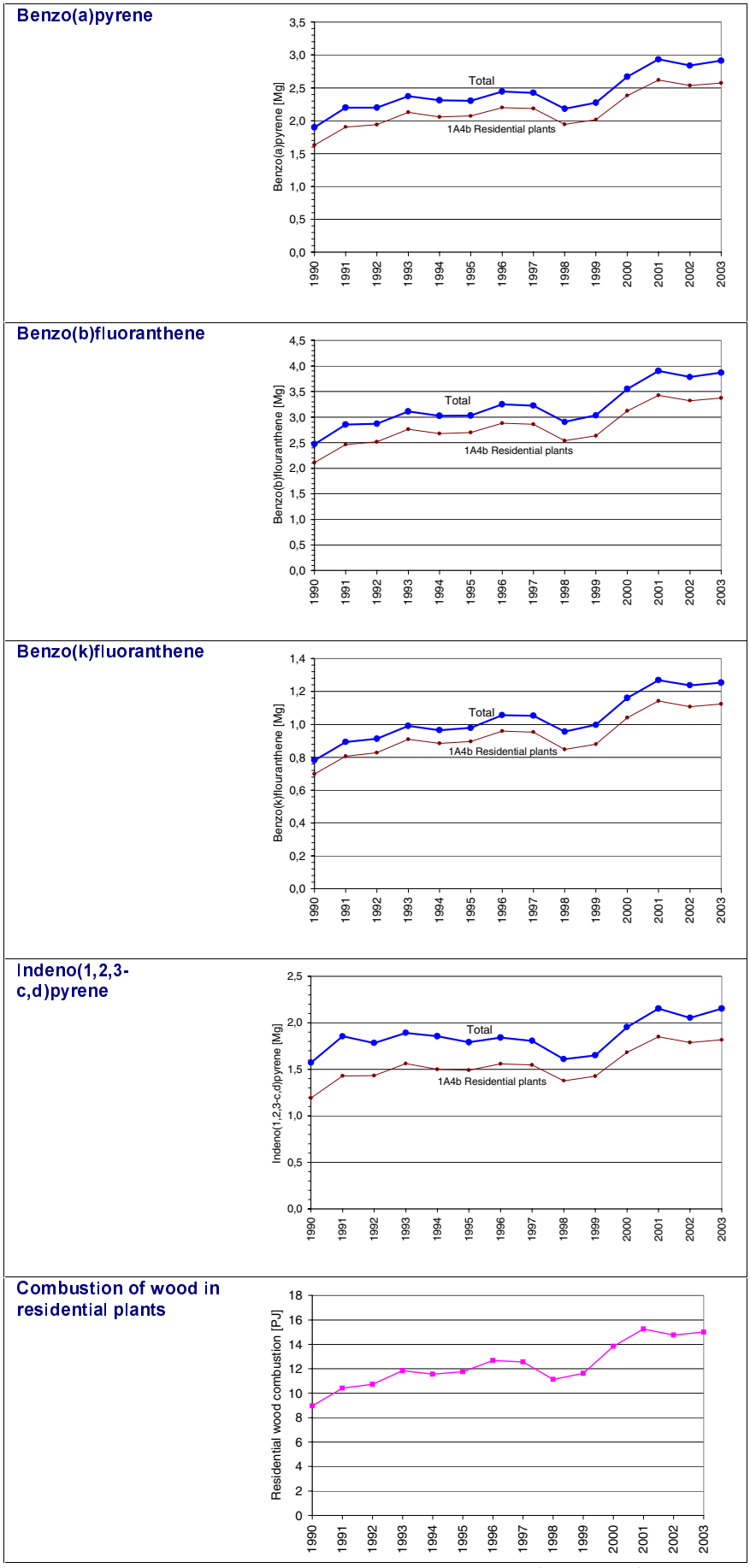


Figure 38 PAH emission time-series, stationary combustion plants. Comparison with wood consumption in residential plants.

10 QA/QC and validation

The elaboration of a formal QA/QC plan started in 2004. A first draft QA/QC plan (in Danish) for stationary combustion have been developed and this draft version is now applied as one of two sector specific QA/QC cases. Adaptation to the general QA/QC plan will be performed in 2005.

The draft QA/QC plan for stationary combustion includes:
- Documentation concerning external data sources, including contacts, contracts with data supplier, archiving and suggested QC.
- Compilation of the data for the emission database, including current QC and suggested QC
- Data input to the emission database, including information on whether the data transfer is manual or not, current QC during and after data input, suggested QC.
- Emission inventory, including current and suggested QC of the emission inventory (consistency and completeness)
- Data transfer from the emission database to the reporting formats, including current and planned QC and archiving.
- A suggestion for the future archiving structure
- A time schedule for the QC plan
- QA
- Verification

The QC is not implemented yet. This year the QC procedures applied are the same as those applied last year. The QC includes:

- Checking of time-series in the IPCC and SNAP source categories. Considerable changes are controlled and explained.
- Comparison with the inventory of the previous year. Any major changes are verified.
- Total emission, when aggregated to IPCC and LRTAP reporting tables, is compared with 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 IPCC reference approach validates the fuel consumption rates and CO_2 emissions of fuel combustion. Fuel consumption rates and CO_2 emissions differ by less than 1,5% (1990-2003). The reference approach is further discussed below.
- The emission from each large point source is compared with the emission reported the previous year.
- Some automated checks have been prepared for the emission databases:
  - Check of units for fuel rate, emission factor and plant specific emissions
  - Check of emission factors for large point sources. Emission factors for pollutants that are not plant-specific should be the same as those defined for area sources.
  - Additional checks on database consistency
- Most emission factor references are now incorporated in the emission database, itself.

- Annual environmental reports are kept for subsequent control of plant specific emission data.
- 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 an environmental management system. Danish Gas Technology Centre and dk-Teknik[2] both run accredited laboratories for emission measurements.

10.1 Reference approach

In addition to the sector-specific CO_2 emission inventories (the national approach), the CO_2 emission is also estimated using the reference approach described in the IPCC Reference Manual (IPCC 1996). The reference approach is based on data for fuel production, import, export and stock change. The CO_2 emission inventory based on the reference approach is reported to the Climate Convention and used for verification of the official data in the national approach.

Data for import, export and stock change used in the reference approach originate from the annual "basic data" table prepared by the Danish Energy Authority and published on their home page (DEA 2004b). The fraction of carbon oxidised has been assumed to be 1,00. The carbon emission factors are default factors originating from the IPCC Reference Manual (IPCC 1996). The country-specific emission factors are not used in the reference approach, the approach being for the purposes of verification.

The Climate Convention reporting tables include a comparison of the national approach and the reference approach estimates. To make results comparable, the CO_2 emission from incineration of the plastic content of municipal waste is added in the reference approach. Further consumption for non-energy purposes is subtracted in the reference approach, because non-energy use of fuels is not, as yet, included in the Danish national approach.

Three fuels are used for non-energy purposes: lube oil, bitumen and white spirit. The total consumption for non-energy purposes is relatively low – 10,8 PJ in 2003.

In 2003 the fuel consumption rates in the two approaches differ by 0,28% and the CO_2 emission differs by 0,04%. In the period 1990-2003 fuel consumption differs by less than 1,5%, and the CO_2 emission by less than 1,4%. The differences are below 1% for all years except 1998. According to IPCC Good Practice Guidance (IPCC 2000) the difference should be within 2%. The reference approach for 2003 and the comparison with the Danish national approach are provided in Appendix 14. The appendix also includes a correspondence list for the fuel categories (Danish Energy Authority/IPCC reference approach).

A comparison of the national approach and the reference approach is illustrated in Figure 39.

[2] Now FORCE

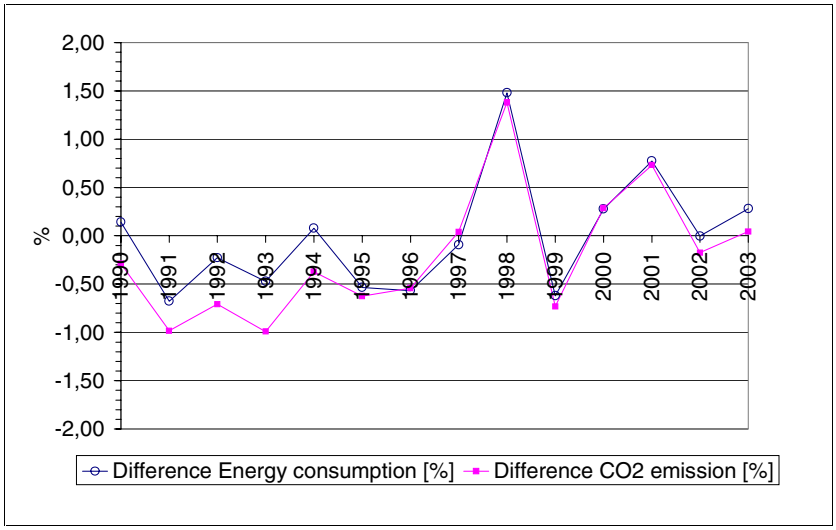


Figure 39 Comparison of the reference approach and the national approach.

10.2 External review

The first national external review of this annually updated report was performed in 2004 by Jan Erik Johnsson, Technology University of Denmark. The review was performed after the reporting in 2004 and thus the improvements of emission factors suggested by Jan Erik Johnsson have been included the inventory presented in this report.

This report (Annex 2A) has not been externally reviewed yet. A reviewed version of the report will be published later this year.

10.3 Key source analysis

As part of the reportings for the Climate Convention a key source analysis for the Danish emission inventory has been performed. A key source has a significant influence on a country's total inventory of greenhouse gases in terms of the absolute level of emission, the trend in emissions, or both.

Stationary combustion key sources for greenhouse gases are shown in Table 33b. The CO_2 emission from eight different fuels are key sources in the Danish inventory. Further CH_4 emission is a trend key source due to the increased electricity production based on gas engines.

The key source analysis will be considered in the future QC for stationary combustion.

Table 33b Key sources, stationary combustion

Source		Pollutant	Key source	Level or trend
CO_2 Emission from stationary Combustion	Coal	CO_2	Yes	Level, Trend
CO_2 Emission from stationary Combustion	Petroleum coke	CO_2	Yes	Level, Trend
CO_2 Emission from stationary Combustion	Plastic waste	CO_2	Yes	Level, Trend
CO_2 Emission from stationary Combustion	Residual oil	CO_2	Yes	Level, Trend
CO_2 Emission from stationary Combustion	Gas oil	CO_2	Yes	Level, Trend
CO_2 Emission from stationary Combustion	Kerosene	CO_2	Yes	Trend
CO_2 Emission from stationary Combustion	Natural gas	CO_2	Yes	Level, Trend
CO_2 Emission from stationary Combustion	Refinery gas	CO_2	Yes	Level
Non-CO_2 Emission from stationary Combustion		CH_4	Yes	Trend

11 Uncertainty

According to the IPCC Good Practice Guidance (IPCC 2000) uncertainty estimates should be included in the annual National Inventory Report. Likewise, uncertainty estimates for the LRTAP Convention inventories are included in the report for these inventories.

Uncertainty estimates include uncertainty with regard to the total emission inventory as well as uncertainty with regard to trends. The GHG emission from stationary combustion plants has been estimated with an uncertainty interval of ±11% and the increase in the GHG emission since 1990 has been estimated to be 11,1% ± 1,7 %-age-points.

11.1 Methodology

The Danish uncertainty estimates for GHGs are based on a methodology included in IPCC Good Practice Guidance (IPCC 2000). The estimates are based on uncertainties for emission factors and fuel consumption rates, respectively. The input data required for the uncertainty calculations are:

- Emission data for the base year and the last year
- Uncertainty for activity rates
- Uncertainty for emission factors

11.1.1 Greenhouse gases

The Danish uncertainty estimates for GHGs are based on the tier 1 approach in IPCC Good Practice Guidance (IPCC 2000). The uncertainty levels have been estimated for the following emission source subcategories within stationary combustion:

- CO_2 emission from each of the applied fuel categories
- CH_4 emission from gas engines
- CH_4 emission from all other stationary combustion plants
- N_2O emission from all stationary combustion plants

The separate uncertainty estimation for gas engine CH_4 emission and CH_4 emission from other plants does not follow the recommendations in the IPCC Good Practice Guidance. Disaggregation is applied, because in Denmark the CH_4 emission from gas engines is much larger than the emission from other stationary combustion plants, and the CH_4 emission factor for gas engines is estimated with a much smaller uncertainty level than for other stationary combustion plants.

Most of the applied uncertainty estimates for activity rates and emission factors are default values from the IPCC Reference Manual. A few of the uncertainty estimates are, however, based on national estimates.

Table 34 Uncertainty rates for activity rates and emission factors.

IPCC Source category	Gas	Activity data uncertainty %	Emission factor uncertainty %
Stationary Combustion, Coal	CO_2	1 [1)]	5 [3)]
Stationary Combustion, BKB	CO_2	3 [1)]	5 [1)]
Stationary Combustion, Coke oven coke	CO_2	3 [1)]	5 [1)]
Stationary Combustion, Petroleum coke	CO_2	3 [1)]	5 [1)]
Stationary Combustion, Plastic waste	CO_2	5 [4)]	5 [4)]
Stationary Combustion, Residual oil	CO_2	2 [1)]	2 [3)]
Stationary Combustion, Gas oil	CO_2	4 [1)]	5 [1)]
Stationary Combustion, Kerosene	CO_2	4 [1)]	5 [1)]
Stationary Combustion, Orimulsion	CO_2	1 [1)]	2 [3)]
Stationary Combustion, Natural gas	CO_2	3 [1)]	1 [3)]
Stationary Combustion, LPG	CO_2	4 [1)]	5 [1)]
Stationary Combustion, Refinery gas	CO_2	3 [1)]	5 [1)]
Stationary combustion plants, gas engines	CH_4	2,2 [1)]	40 [2)]
Stationary combustion plants, other	CH_4	2,2 [1)]	100 [1)]
Stationary combustion plants	N_2O	2,2 [1)]	1000 [1)]

1) IPCC Good Practice Guidance (default value)
2) Kristensen (2003)
3) Jensen & Lindroth (2003)
4) NERI assumption

11.1.2 Other pollutants

With regard to other pollutants, IPCC methodologies for uncertainty estimates have been adopted for the LRTAP Convention reporting activities (Pulles & Aardenne 2003). 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 2003 as well as on uncertainties for fuel consumption and emission factors for each of the main SNAP sectors. For particulate matter 2000 is considered to be the 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 2003. 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 listed in Table 35. The uncertainty for fuel consumption in stationary combustion plants was assumed to be 2%.

Table 35 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

11.2 Results

The uncertainty estimates for stationary combustion emission inventories are shown in Table 36. Detailed calculation sheets are provided in Appendix 9.

The uncertainty interval for GHG is estimated to be ±11% and the uncertainty for the trend in GHG emission is ±1,7%-age points. The main sources of uncertainty for GHG emission are N_2O emission (all plants) and CO_2 emission from coal combustion. The main source of uncertainty in the trend in GHG emission is CO_2 emission from the combustion of coal and natural gas.

The total emission uncertainty is 7% for SO_2, 16% for NO_X, 38% for NMVOC and 43% for CO. For PM, heavy metals and PAH the uncertainty estimate is greater than 100%.

Table 36 Danish uncertainty estimates, 2003.

Pollutant	Uncertainty Total emission	Trend 1990-2003	Uncertainty Trend
	[%]	[%]	[%-age points]
GHG	10,8	+11,1	± 1,7
CO_2	2,9	+10,1	± 1,7
CH_4	39	+330	± 320
N_2O	1000	+10,7	± 3,4
SO_2	7	-82,9	±0,5
NO_X	16	-26	±2
NMVOC	38	46	±15
CO	43	6,4	±4,1
TSP [1)]	417	-2,4	±7,3
PM_{10} [1)]	432	-3,3	±4,4
$PM_{2.5}$ [1)]	445	-3,2	±4,6
As	120	-50	±5
Cd	281	-50	±70
Cr	131	-84	±11
Cu	226	-72	±38
Hg	231	-60	±47
Ni	114	-59	±3
Pb	117	-78	±10
Se	109	-54	±13
Zn	185	-7	±22
Benzo(b)fluoranthene	968	57	±4
Benzo(k)fluoranthene	976	60	±29
Benzo(a)pyrene	988	53	±5
Indeno(1,2,3-c,d)	993	37	±9

1. The base year for PM is year 2000

12 Geographical distribution of the emissions

Geographical distribution of emissions has been reported to the LRTAP Convention for the years 1990, 1995 and 2000 (Illerup et al. 2003). The emissions are disaggregated to a grid of 50x50 km^2. Gridded data are reported for SO_2, NO_X, NMVOC, CO, PM, heavy metals and PAH. The assumptions and methodology will not be discussed here, but gridded emission data for SO_2 from stationary combustion plants are illustrated in Figure 40. The gridded emission data are available on the EU EIONET (European Environment Information and Observation Network) homepage, which can be linked from the NERI home page, www.dmu.dk.

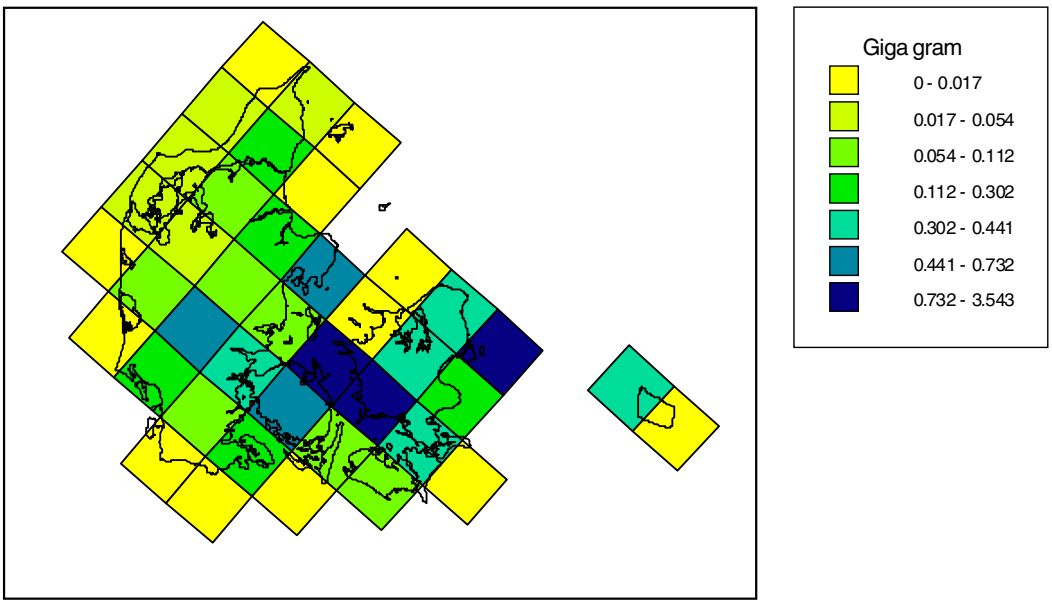


Figure 40 Gridded SO_2 emission from stationary combustion, 2000 (Hansen & Illerup 2003).

13 Improvements/recalculations since reporting in 2004

Improvements and recalculations since the 2004 emission inventory include:

- Update of fuel rates according to the latest energy statistics. The update included the years 1980-2002.

- Disaggregation of fuel consumption and emissions to industrial subsectors. In addition to fuel consumption the following pollutants have been disaggregated: CO_2, CH_4, N_2O, SO_2, NO_x, NMVOC and CO. The disaggregation itself does not change the reported totals. Disaggregation of the remaining pollutants is planned next year.

- A contract between NERI and the Danish Energy Authority specifying the content of the data supply for the emission inventory and deadlines have been signed. This contract also specifies that NERI will get access to the plant specific CO_2 data that will be collected by DEA from 2006.

- Brown coal and coke oven coke is not included in fuel category coal as in the former inventories.

- Improved emission factors for fish & rape oil have been estimated

- As a result of the first national external review a few emission factors have been improved. These changes do not change the estimated total emissions considerably.

- The PM emission factors for residential plants have been changed as a result of a Nordic project focussing on these factors.

Furthermore, a few minor errors for large point sources have been corrected. These corrections do not affect greenhouse gases.

14 Future improvements

Some planned improvements of the emission inventories are discussed below.

1) Improved documentation for CO_2 emission factors

The CO_2 emission factors applied for the Danish inventories are considered accurate, but documentation will be improved in future inventories. The documentation will be improved when the large plants start reporting CO_2 emission based on plant specific CO_2 emission factors (2006).

2) Improved documentation for other emission factors

Reporting of and references for the applied emission factors have been improved in the current year and will be further developed in future inventories.

3) QA/QC and validation

The QA/QC and validation of the inventories for stationary combustion will be implemented as part of the work that has been initiated for the Danish inventory as a whole. Implementation will start in 2005.

4) Uncertainty estimates

Uncertainty estimates are based mainly on default uncertainty levels for activity rates and emission factors. More country-specific uncertainty estimates will be incorporated in future inventories.

The uncertainty of the N_2O emission factor from stationary combustion plants is a default value from the IPCC GPG. This uncertainty is a major uncertainty in the total Danish GHG inventory. Several of the applied N_2O emission factors are however based on emission measurements on a considerable number of Danish plants, and thus the uncertainty is considered overestimated. A country specific uncertainty estimate for N_2O will be estimated next year.

5) Other improvements

- The criteria for including a plant as a point source should be defined and the list of plants updated annually.
- HM emission factors should be compared to new Danish legislation and updated if relevant.
- White spirit will be dislocated to the fuel category Other oil in the IPCC reference approach.

15 Conclusion

The annual Danish emission inventories are prepared and reported by NERI. The inventories are based on the Danish energy statistics and on a set of emission factors for various sectors, technologies and fuels. Plant-specific emissions for large combustion sources are incorporated in the inventories.

Since 1990 fuel consumption has increased by 25% - fossil fuel consumption, however, by only 18%. The use of coal has decreased whereas the use of natural gas and renewable fuels has increased. The Danish fuel consumption fluctuates due to variation in the import/export of electricity from year to year.

Stationary combustion plants account for more than 50% of the total Danish emission for the following pollutants: SO_2, CO_2, heavy metals (except Cu), $PM_{2.5}$ and PAH. Furthermore, the emission from stationary combustion plants accounts for more than 10% of the total Danish emission for the following pollutants: NO_X, CO, NMVOC, TSP, PM_{10} and Cu. Stationary combustion plants account for less than 10% of the total Danish CH_4 and N_2O emission.

Public power plants are the most important stationary combustion emission source for SO_2, CO_2, NO_X and heavy metals.

Lean-burn gas engines installed in decentralised CHP plants are the largest stationary combustion emission source for CH_4. Furthermore, these plants are also a considerable emission source for NMVOC.

Residential plants represent the most important stationary combustion source for CO, NMVOC, particulate matter and PAH. Wood combustion in residential plants is the predominant emission source.

The greenhouse gas emission (GHG) development follows the CO_2 emission development closely. Both the CO_2 and the total GHG emission was higher in 2003 than in 1990: CO_2 by 10% and GHG by 11%. However fluctuations in the GHG emission level are great. The fluctuations in the time-series are a result of electricity import/export and of outdoor temperature variations from year to year.

The CH_4 emission from stationary combustion has increased by a factor of 4,3 since 1990. This is a result of the considerable number of lean-burn gas engines installed in CHP plants in Denmark during this period.

SO_2 emission from stationary combustion plants has decreased by 94% from 1980 and by 78% from 1995. The considerable emission decrease is mainly a result of the reduced emission from electricity and heat production due to installation of desulphurisation technology and the use of fuels with lower sulphur content.

The NO_X emission from stationary combustion plants has decreased by 43% since 1985 and 23% since 1995. The reduced emission is mainly a result of the reduced emission from electricity and heat production. The fluctuations in the emission time-series follow fluctuations in electricity import/export.

Wood consumption in residential plants has increased by 68% from 1990 to 2003 leading to an increased CO emission. The increase in CO emission from

residential plants is less than the increase in wood consumption, because CO emission from straw-fired farmhouse boilers has decreased considerably.

The NMVOC emission from stationary combustion plants has increased by 43% from 1985 and 15% from 1995. The increased NMVOC emission is mainly a result of the increased use of lean-burn gas engines. The emission from residential plants is relatively constant, but the emission from wood combustion increased considerably and the emission from straw combustion decreased.

All the heavy metal emissions decreased considerably since 1990 – between 7% and 84%. This is a result of the installation and improved performance of gas cleaning devices in municipal waste incineration plants and large power plants.

The PAH emission has increased since 1990 due to the increased consumption of wood in residential plants.

The uncertainty level of the Danish greenhouse gas emission from stationary combustion is estimated to be within a range of ±11% and the trend uncertainty within a range of ±1,7%-age points. The sources contributing the most to the uncertainty estimates are the N_2O emission (all plants) and the CO_2 emission from coal combustion.

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Appendix

Appendix 1: The Danish emission inventory for the year 2003 reported to the Climate Convention in 2004

Appendix 2: Emission inventory for the year 2003 reported to the LRTAP Convention in 2004

Appendix 3: IPCC/SNAP source correspondence list

Appendix 4: Fuel rate

Appendix 5: Emission factors

Appendix 6: Implied emission factors for power plants and municipal waste incineration plants

Appendix 7: Large point sources

Appendix 8: Uncertainty estimates

Appendix 9: Lower Calorific Value (LCV) of fuels

Appendix 10: Adjustment of CO_2 emission

Appendix 11: Reference approach

Appendix 12: Emission inventory 2003 based on SNAP sectors

Appendix 1 The Danish emission inventory for the year 2003 reported to the Climate Convention

Table 37 The Danish emission inventory for the year 2003 reported to the Climate Convention in 2005 (Illerup et al. 2005a).

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 [1]	CH_4	N_2O	HFCs	PFCs	SF_6	Total
	CO_2 equivalent (Gg)						
Total (Net Emissions) [1]	**58.124,39**	**5.873,26**	**8.059,69**	**695,48**	**19,34**	**31,37**	**72.803,53**
1. Energy	**57.634,90**	**770,94**	**911,89**				**59.317,73**
A. Fuel Combustion (Sectoral Approach)	57.085,08	594,27	908,91				58.588,26
1. Energy Industries	31.401,90	329,84	327,56				32.059,30
2. Manufacturing Industries and Construction	5.404,21	34,02	55,80				5.494,03
3. Transport	12.785,27	65,09	428,94				13.279,30
4. Other Sectors	7.401,72	165,23	95,16				7.662,12
5. Other	91,98	0,09	1,45				93,52
B. Fugitive Emissions from Fuels	549,82	176,67	2,98				729,46
1. Solid Fuels	0,00	93,10	0,00				93,10
2. Oil and Natural Gas	549,82	83,57	2,98				636,36
2. Industrial Processes	**1.488,18**	**0,00**	**894,66**	**695,48**	**19,34**	**31,37**	**3.129,04**
A. Mineral Products	1.485,51	0,00	0,00				1.485,51
B. Chemical Industry	2,67	0,00	894,66	0,00	0,00	0,00	897,33
C. Metal Production	0,00	0,00	0,00		0,00	0,00	0,00
D. Other Production	NE						0,00
E. Production of Halocarbons and SF_6				0,00	0,00	0,00	0,00
F. Consumption of Halocarbons and SF_6				695,48	19,34	31,37	746,19
G. Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
3. Solvent and Other Product Use	**205,59**		**0,00**				**205,59**
4. Agriculture	**0,00**	**3.705,53**	**6.192,47**				**9.898,00**
A. Enteric Fermentation		2.733,61					2.733,61
B. Manure Management		971,93	560,31				1.532,24
C. Rice Cultivation		0,00					0,00
D. Agricultural Soils[2]		0,00	5.632,16				5.632,16
E. Prescribed Burning of Savannas		0,00	0,00				0,00
F. Field Burning of Agricultural Residues		0,00	0,00				0,00
G. Other		0,00	0,00				0,00
5. Land-Use Change and Forestry[1]	**-1.204,28**	**0,00**	**0,00**				**-1.204,28**
6. Waste	**0,00**	**1.396,79**	**60,67**				1.457,46
A. Solid Waste Disposal on Land	0,00	1.152,81					1.152,81
B. Wastewater Handling		243,97	60,67				304,65
C. Waste Incineration	0,00	0,00	0,00				0,00
D. Other	0,00	0,00	0,00				0,00
7. Other *(please specify)*	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**	**0,00**
							0,00
Memo Items:							
International Bunkers	**5.317,55**	**2,38**	**84,92**				**5.404,85**
Aviation	2.187,52	0,89	23,63				2.212,04
Marine	3.130,03	1,49	61,28				3.192,81
Multilateral Operations	**0,00**	**0,00**	**0,00**				**0,00**
CO_2 Emissions from Biomass	**9.107,71**						**9.107,71**

[1] For CO_2 emissions from Land-Use Change and Forestry the net emissions are to be reported. Please note that for the purposes of reporting, the signs for uptake are always (-) and for emissions (+).

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

GREENHOUSE GAS SOURCE AND SINK CATEGORIES	CO_2 emissions	CO_2 removals	Net CO_2 emissions / removals	CH_4	N_2O	Total emissions
Land-Use Change and Forestry	CO_2 equivalent (Gg)					
A. Changes in Forest and Other Woody Biomass Stocks	0,00	-3.533,00	-3.533,00			-3.533,00
B. Forest and Grassland Conversion	0,00		0,00	0,00	0,00	0,00
C. Abandonment of Managed Lands	0,00	0,00	0,00			0,00
D. CO_2 Emissions and Removals from Soil	2.477,81	-149,09	2.328,72			2.328,72
E. Other	0,00	0,00	0,00	0,00	0,00	0,00
Total CO_2 Equivalent Emissions from Land-Use Change and Forestry	2.477,81	-3.682,09	-1.204,28	0,00	0,00	-1.204,28

Total CO_2 Equivalent Emissions without Land-Use Change and Forestry [a]	74.007,81
Total CO_2 Equivalent Emissions with Land-Use Change and Forestry [a]	72.803,53

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

Appendix 2 Emission inventory for the year 2003 reported to the LRTAP Convention in 2004

Table 38 Emission inventory for the year 2003 reported to the LRTAP in 2005 (a) (Illerup et al. 2005b).

	NOx	CO	NMVOC	SOx	TSP	PM10	PM2.5
	Gg NO2	Gg	Gg	Gg SO2	Mg	Mg	Mg
1 A 1 a Public Electricity and Heat Production	56,25	12,20	4,22	16,96	1301,37	1020,33	837,02
1 A 1 b Petroleum refining	1,65	0,24	0,00	0,49	128,14	119,07	114,54
1 A 1 c Manufacture of Solid Fuels and Other Energy Industries	6,61	0,18	0,04	0,01	2,75	1,65	1,38
1 A 2 Manufacturing Industries and Construction	15,18	13,84	3,64	4,71	1313,35	1109,23	990,08
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	25,82	23,25	10,71
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)	8,89	9,25	0,09	1,35	435,46	379,00	236,75
1 A 3 a ii Civil Aviation (Domestic, LTO)	0,18	0,60	0,10	0,00	1,24	1,24	1,24
1 A 3 a ii Civil Aviation (Domestic, Cruise)	0,40	0,12	0,02	0,00	1,65	1,65	1,65
1 A 3 b Road Transportation	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 A 3 b i R.T., Passenger cars	29,91	238,54	18,26	0,21	709,98	709,98	709,98
1 A 3 b ii R.T., Light duty vehicles	10,45	15,63	1,88	0,07	1551,32	1551,32	1551,32
1 A 3 b iii R.T., Heavy duty vehicles	24,42	6,29	2,80	0,10	1157,03	1157,03	1157,03
1 A 3 b iv R.T., Mopeds & Motorcycles	0,12	14,01	2,75	0,00	45,45	45,45	45,45
1 A 3 b v R.T., Gasoline evaporation	NA	NA	6,16	NA	NA	NA	NA
1 A 3 b vi R.T., Automobile tyre and brake wear	NA	NA	NA	NA	1310,43	981,85	534,94
1 A 3 b vii R.T., Automobile road abrasion	NA	NA	NA	NA	925,16	462,58	249,79
1 A 3 c Railways	3,54	0,61	0,22	0,01	118,60	118,60	118,60
1 A 3 d ii National Navigation	8,84	20,04	11,38	1,86	587,59	559,38	532,57
1 A 3 e Other (Please specify in a covering note)	0,00	0,00	0,00	0,00	0,00	0,00	0,00
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	1,24	0,94	0,75	0,36	192,18	185,23	172,16
1 A 4 b Residential	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 A 4 b i Residential plants	4,86	149,24	11,11	1,74	11601,15	11004,63	10416,91
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	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 A 4 c i Stationary	1,54	8,60	1,63	1,51	529,47	492,81	459,36
1 A 4 c ii Off-road Vehicles and Other Machinery	19,63	20,77	4,46	0,38	2012,45	1912,46	1818,47
1A 4 c iii National Fishing	11,39	1,48	0,47	0,86	367,28	348,93	331,50
1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO
1 A 5 b Other, Mobile (Including military)	0,45	0,31	0,06	0,00	24,87	24,87	24,87
1B1 Fugitive Emissions from Solid Fuels	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 B 1 a Coal Mining and Handling	NA	31,78	NA	NA	1404,12	561,65	56,16
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	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 B 2 a Oil	0,00	0,00	0,00	0,00	0,00	0,00	0,00
1 B 2 a i Exploration Production, Transport	NA	NA	10,06	IE	NA	NA	NA
1 B 2 a iv Refining / Storage	NA	NA	3,71	0,25	NA	NA	NA
1 B 2 a v Distribution of oil products	NA	NA	1,04	NA	NA	NA	NA
1 B 2 a vi Other	NO	NO	NO	NO	NO	NO	NO
1 B 2 b Natural gas	NA	NA	0,06	NA	NA	NA	NA
1 B 2 c Venting and flaring	2,83	0,24	0,03	0,10	2,18	2,18	2,18
2 A MINERAL PRODUCTS (b)	0,00	0,00	0,00	0,00	0,00	0,00	0,00
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	0,00	0,00	0,00
2 B CHEMICAL INDUSTRY	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2 B 1 Ammonia Production	NO	NO	NO	NO	NO	NO	NO
2 B 2 Nitric Acid Production	0,46	NE	NE	NE	323,00	258,00	194,00
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)	0,02	NE	0,03	NE	NE	NE	NE
2 C METAL PRODUCTION	NA	NE	NE	NA	NE	NE	NE
2 D OTHER PRODUCTION (b)	0,00	0,00	0,00	0,00	0,00	0,00	0,00
2 D 1 Pulp and Paper	NE	NE	NE	NE	NE	NE	NE
2 D 2 Food and Drink	NE	NE	0,52	NE	NE	NE	NE
2 G OTHER (Please specify in a covering note)	NO	NO	NO	NO	NO	NO	NO
3 A PAINT APPLICATION	NA	NA	41,36	NA	NA	NA	NA
3 B DEGREASING AND DRY CLEANING	NA	NA	8,50	NA	NA	NA	NA
3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NA	NA	1,21	NA	NA	NA	NA
3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NA	NA	16,10	NA	NA	NA	NA

4 B MANURE MANAGEMENT (c)	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4 B 1 Cattle	IE	IE	IE	IE	IE	IE	IE
4 B 1 a Dairy	NA	NA	NA	NA	574,34	258,44	57,46
4 B 1 b Non-Dairy	NA	NA	NA	NA	1087,30	489,26	108,78
4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO
4 B 3 Sheep	NA	NA	NA	NA	NE	NE	NE
4 B 4 Goats	NA	NA	NA	NA	NE	NE	NE
4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO
4 B 6 Horses	NA	NA	NA	NA	NE	NE	NE
4 B 7 Mules and Asses	NO	NO	NO	NO	NO	NO	NO
4 B 8 Swine	NA	NA	NA	NA	12591,55	5666,46	1258,64
4 B 9 Poultry	NA	NA	NA	NA	2159,02	971,84	215,72
4 B 13 Other	NA	NA	NA	NA	NE	NE	NE
4 C RICE CULTIVATION	NO	NO	NO	NO	NO	NO	NO
4 D AGRICULTURAL SOILS	0,00	0,00	0,00	0,00	0,00	0,00	0,00
4 D 1 Direct Soil Emission	NA	NA	1,64	NA	NE	NE	NE
4 F FIELD BURNING OF AGRICULTURAL WASTES	NA	NA	NA	NA	NA	NA	NA
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	NA	NA	NE	NA	NA	NA	NA
6 B WASTE-WATER HANDLING	NA	NA	NE	NA	NA	NA	NA
6 C WASTE INCINERATION (e)	NO	NO	NO	NO	NO	NO	NO
6 D OTHER WASTE (f)	0,00	0,00	0,00	0,00	0,05	0,05	0,05
7 OTHER	NO	NO	NO	NO	NO	NO	NO
National Total	**209**	**593**	**158**	**31**	**42685**	**30497**	**22243**
Memo Items							
International Aviation (LTO)	0,93	0,63	0,11	0,01	3,34	3,34	3,34
International Aviation (Cruise)	8,35	1,06	0,30	0,06	31,96	31,96	31,96
International Navigation	85,76	7,29	2,29	44,11	4976,36	4727,55	4491,17
5 E Other	0,00	0,00	0,00	0,00	0,00	0,00	0,00
X (11 08 Volcanoes)	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Table 38 Emission inventory for the year 2003 reported to the LRTAP in 2005 (b) (Illerup et al. 2005b).

	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	1,89	0,20	0,71	0,45	0,47	0,60	2,74	1,02	13,34
1 A 1 b Petroleum refining	0,02	0,01	0,00	0,01	0,03	0,01	0,58	0,01	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	0,22	0,14	0,08	0,11	0,26	0,50	4,53	0,10	1,15
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)	0,30	0,02	0,15	0,05	0,03	0,03	0,05	0,25	0,16
1 A 3 a ii Civil Aviation (Domestic, LTO)	1,03	0,00	NE	NE	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	3,55	0,15	0,02	2,09
1 A 3 b ii R.T., Light duty vehicles	0,00	0,01	NE	NE	0,03	1,13	0,05	0,01	0,66
1 A 3 b iii R.T., Heavy duty vehicles	0,00	0,01	NE	NE	0,05	1,63	0,07	0,01	0,96
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	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vi R.T., Automobile tyre and brake wear	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 b vii R.T., Automobile road abrasion	NA	NA	NA	NA	NA	NA	NA	NA	NA
1 A 3 c Railways	-	0,00	-	-	0,00	0,12	0,00	0,00	0,07
1 A 3 d ii National Navigation	0,02	0,00	0,01	0,03	0,01	0,10	1,35	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	0,15	0,02	0,09	0,02	0,04	0,06	0,17	0,02	0,55
1 A 4 b Residential	-	-	-	-	-	-	-	-	-
1 A 4 b i Residential plants	0,13	0,11	0,16	0,03	0,03	0,14	0,05	0,13	2,39
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	0,04	0,02	0,02	0,02	0,04	0,02	0,60	0,02	0,09
1 A 4 c ii Off-road Vehicles and Other Machinery	0,00	0,00	NE	-	0,02	0,66	0,03	0,00	0,39
1A 4 c iii National Fishing	0,02	0,00	0,01	0,01	0,01	0,01	0,08	0,04	0,10
1 A 5 a Other, Stationary (including Military)	NO	NO	NO	NO	NO	NO	NO	NO	NO
1 A 5 b Other, Mobile (Including military)	0,08	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	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a iv Refining / Storage	NA	NA	NA	NA	NA	NA	NA	NA	NO
1 B 2 a v Distribution of oil products	NA	NA	NA	NA	NA	NA	NA	NA	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)	NO	NO	NO	NO	NO	NO	NO	NO	NO
3 A PAINT APPLICATION	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 B DEGREASING AND DRY CLEANING	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NA	NA	NA	NA	NA	NA	NA	NA	NA
3 D OTHER including products containing HMs and POPs (Please specify in a covering note)	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B MANURE MANAGEMENT (c)	-	-	-	-	-	-	-	-	-
4 B 1 Cattle	IE	IE	IE	IE	IE	IE	IE	IE	IE
4 B 1 a Dairy	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 1 b Non-Dairy	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 2 Buffalo	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 3 Sheep	NA	NA	NA	NA	NA	NA	NA	NA	NA

4 B 4 Goats	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 5 Camels and Llamas	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 6 Horses	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 7 Mules and Asses	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 B 8 Swine	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 9 Poultry	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 B 13 Other	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 C RICE CULTIVATION	NO	NO	NO	NO	NO	NO	NO	NO	NO
4 D AGRICULTURAL SOILS	-	-	-	-	-	-	-	-	-
4 D 1 Direct Soil Emission	NA	NA	NA	NA	NA	NA	NA	NA	NA
4 F FIELD BURNING OF AGRICULTURAL WASTES	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	NA	NA	NA	NA	NA	NA	NA	NA	NA
6 B WASTE-WATER HANDLING	NA	NA	NA	NA	NA	NA	NA	NA	NA
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	**4,66**	**0,58**	**1,24**	**0,76**	**1,23**	**8,80**	**10,6**	**2,11**	**23,3**
Memo Items									
International Aviation (LTO)	0,09	0,00	-	-	0,00	0,11	0,00	0,00	0,06
International Aviation (Cruise)	-	0,01	-	-	0,03	1,07	0,04	0,01	0,63
International Navigation	0,15	0,02	0,03	0,27	0,12	0,27	15,04	0,30	0,69
5 E Other	-	-	-	-	-	-	-	-	-
X (11 08 Volcanoes)	-	-	-	-	-	-	-	-	-

Table 38 Emission inventory for the year 2003 reported to the LRTAP in 2005 (c) (Illerup et al. 2005b).

	Dioxin g I-tec	Benzo(a)-pyrene Mg	Benzo(b)-fluoranthene Mg	Benzo(k)-fluoranthene Mg	Indeno(1,3,3-c,d)pyrene Mg
1 A 1 a Public Electricity and Heat Production	4,700	0,008	0,032	0,015	0,008
1 A 1 b Petroleum refining	NA	0,000	0,000	0,000	0,000
1 A 1 c Manufacture of Solid fuels and Other ENRrgy Industries	NA	0,000	0,000	0,000	0,000
1 A 2 Manufacturing Industries and Construction	NA	0,004	0,018	0,016	0,006
1 A 2 a Iron and Steel	1,460	NA	NA	NA	NA
1 A 2 b NAn-ferrous Metals	0,400	NA	NA	NA	NA
1 A 2 c Chemicals	0,004	NA	NA	NA	NA
1 A 2 d Pulp, Paper and Print	NA	NA	NA	NA	NA
1 A 2 e Food Processing, Beverages & Tobacco	NA	NA	NA	NA	NA
1 A 2 f Other (Please specify in a covering NAte)	0,070	0,025	0,078	0,004	0,003
1 A 3 a ii Civil Aviation (Domestic, LTO)	NA	0,000	0,000	0,000	0,000
1 A 3 a ii Civil Aviation (Domestic, Cruise)	NA	-	-	-	-
1 A 3 b Road Transportation	0,200	-	-	-	-
1 A 3 b i R.T., Passenger cars	IE	0,028	0,028	0,028	0,032
1 A 3 b ii R.T., Light duty vehicles	IE	0,015	0,014	0,013	0,014
1 A 3 b iii R.T., Heavy duty vehicles	IE	0,004	0,020	0,030	0,005
1 A 3 b iv R.T., Mopeds & Motorcycles	IE	0,001	0,001	0,001	0,001
1 A 3 b v R.T., GasoliNR evaporation	IE	NA	NA	NA	NA
1 A 3 b vi R.T., Automobile tyre and brake wear	NA	NA	NA	NA	NA
1 A 3 b vii R.T., Automobile road abrasion	NA	NA	NA	NA	NA
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	0,004	0,002	0,005
1 A 3 e Other (Please specify in a covering NAte)	-	-	-	-	-
1 A 3 e i PipeliNR compressors	NA	NA	NA	NA	NA
1 A 3 e ii Other mobile sources and machiNRry	-	NO	NO	NO	NO
1 A 4 a Commercial / Institutional	NA	0,165	0,217	0,072	0,117
1 A 4 b Residential	NA	NA	NA	NA	NA
1 A 4 b i Residential plants	18,850	2,574	3,372	1,124	1,816
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	NA	NA	NA	NA	NA
1 A 4 c i Stationary	NA	0,140	0,153	0,027	0,205
1 A 4 c ii Off-road Vehicles and Other MachiNRry	NA	0,004	0,008	0,008	0,004
1A 4 c iii National Fishing	NA	NA	NA	NA	NA
1 A 5 a Other, Stationary (including Military)	-	NO	NO	NO	NO
1 A 5 b Other, Mobile (Including military)	NA	0,000	0,000	0,000	0,000
1B1 Fugitive Emissions from Solid Fuels	-	-	-	-	-
1 B 1 a Coal Mining and Handling	NA	NA	NA	NA	NA
1 B 1 b Solid fuel transformation	NO	NO	NO	NO	NO
1 B 1 c Other (Please specify in a covering NAte)	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	NA	NA	NA	NA	NA
1 B 2 a iv Refining / Storage	NA	NA	NA	NA	NA
1 B 2 a v Distribution of oil products	NA	NA	NA	NA	NA
1 B 2 a vi Other	NA	NA	NA	NA	NA
1 B 2 b Natural gas	NA	NA	NA	NA	NA
1 B 2 c Venting and flaring	NA	-	-	-	-
2 A MINRRAL PRODUCTS (a)	-	-	-	-	-
2 A 1 Cement Production	0,800	NA	NA	NA	NA
2 A 2 Lime Production	NA	NA	NA	NA	NA
2 A 3 LimestoNR and Dolomite Use	NA	NA	NA	NA	NA
2 A 4 Soda Ash Production and use	NA	NA	NA	NA	NA
2 A 5 Asphalt Roofing	NA	NA	NA	NA	NA
2 A 6 Road Paving with Asphalt	0,041	NA	NA	NA	NA
2 A 7 Other including NAn Fuel Mining & Construction (Please specify in a covering NAte)	0,160	NA	NA	NA	NA
2 B CHEMICAL INDUSTRY	-	-	-	-	-
2 B 1 Ammonia Production	NO	NO	NO	NO	NO
2 B 2 Nitric Acid Production	NA	NA	NA	NA	NA
2 B 3 Adipic Acid Production	NO	NO	NO	NO	NO
2 B 4 Carbide Production	NO	NO	NO	NO	NO
2 B 5 Other (Please specify in a covering NAte)	NA	NA	NA	NA	NA
2 C METAL PRODUCTION	NA	NA	NA	NA	NA
2 D OTHER PRODUCTION (a)	NA	NA	NA	NA	NA
2 D 1 Pulp and Paper	NA	NA	NA	NA	NA
2 D 2 Food and Drink	NA	NA	NA	NA	NA
2 G OTHER (Please specify in a covering NAte)	-	NO	NO	NO	NO
3 A PAINT APPLICATION	NA	NA	NA	NA	NA
3 B DEGREASING AND DRY CLEANING	NA	NA	NA	NA	NA
3 C CHEMICAL PRODUCTS, MANUFACTURE AND PROCESSING	NA	NA	NA	NA	NA
3 D OTHER including products containing HMs and POPs (Please specify in a covering NAte)	13,250	NA	NA	NA	NA
4 B MANURE MANAGEMENT (b)	-	-	-	-	-

4 B 1 Cattle	NA	NA	NA	NA	NA
4 B 1 a Dairy	NA	NA	NA	NA	NA
4 B 1 b NAn-Dairy	NA	NA	NA	NA	NA
4 B 2 Buffalo	-	NO	NO	NO	NO
4 B 3 Sheep	NA	NA	NA	NA	NA
4 B 4 Goats	NA	NA	NA	NA	NA
4 B 5 Camels and Llamas	NO	NO	NO	NO	NO
4 B 6 Horses	NA	NA	NA	NA	NA
4 B 7 Mules and Asses	-	NO	NO	NO	NO
4 B 8 SwiNR	NA	NA	NA	NA	NA
4 B 9 Poultry	NA	NA	NA	NA	NA
4 B 13 Other	NA	NA	NA	NA	NA
4 C RICE CULTIVATION	NO	NO	NO	NO	NO
4 D AGRICULTURAL SOILS	-	-	-	-	-
4 D 1 Direct Soil Emission	NA	NA	NA	NA	NA
4 F FIELD BURNING OF AGRICULTURAL WASTES	NO	NO	NO	NO	NO
4 G OTHER (c)	NO	NO	NO	NO	NO
5 B FOREST AND GRASSLAND CONVERSION	NO	NO	NO	NO	NO
6 A SOLID WASTE DISPOSAL ON LAND	5,150	NA	NA	NA	NA
6 B WASTEWATER HANDLING	0,002	NA	NA	NA	NA
6 C WASTE INCINRRATION (d)	17,700	NO	NO	NO	NO
6 D OTHER WASTE (e)	NA	NA	NA	NA	NA
7 OTHER	10,250	NO	NO	NO	NO
National Total	**78,000**	**2,968**	**3,948**	**1,340**	**2,218**
International Aviation (LTO)	NA	0,000	0,000	0,000	0,000
International Aviation (Cruise)	NA	-	-	-	-
International MariNR (b)	NA	0,005	0,017	0,008	0,029
5 E Other	NO	NO	NO	NO	NO
X (11 08 VolcaNAes)	NO	NO	NO	NO	NO

Appendix 3 IPCC/SNAP source correspondence list

Table 39 Correspondence list for IPCC source categories 1A1, 1A2 and 1A4 and SNAP (EMEP/Corinair 2004).

SNAP_id	SNAP_name	IPCC 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 [2)]	Other equipments (stoves, fireplaces, cooking,...) [2)]	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 IPCC sector that also includes stationary combustion plants
2) Stoves, fireplaces and cooking is included in the sector 0202 or 020202 in the Danish inventory. It is not possible based on the Danish energy statistics to split the residential fuel consumption between stoves/fireplaces/cooking and residential boilers.

Appendix 4 Fuel rate

Table 40 Fuel consumption rate of stationary combustion plants [GJ].

fuel	fuel	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
102	COAL	253443653	344304910	286838436	300798816	323397473	270346016	371908021	276277339	234284905	196471582	164707939	174308631	174654028	237988396
106	BROWN COAL BRI.	115932	166823	95324	128246	91500	74609	56053	54331	47745	37607	25748	32903	18922	3056
107	COKE OVEN COKE	1275912	1449734	1181054	1154538	1226146	1272910	1226000	1253015	1346306	1422574	1187177	1109591	1068454	995409
110	PETROLEUM COKE	4459523	4403568	4814028	6179382	4308896	4849824	6381422	6523131	5797915	7283513	7291583	8313464	8281655	8465315
111	WOOD AND SIMIL.	18246814	20042438	21030661	22220199	21939961	21844810	23389205	23459226	22937838	24402570	26744717	28699132	31173732	35915081
114	MUNICIP. WASTES	15499033	16744033	17797251	19409907	20312344	22906324	24952440	26770061	26590826	29138335	30351595	32233660	35056955	36174969
117	STRAW	12481150	13306150	13880150	13366000	12662374	13053146	13545635	13911770	13903702	13668183	12219993	13698193	15651212	16718510
118	SEWAGE SLUDGE											40162	0	64508	55369
203	RESIDUAL OIL	32115776	37019676	37331786	32498181	46701347	34069407	38484607	26693239	29479704	22987286	18041774	20248414	24751387	27181710
204	GAS OIL	61673851	65356000	55971755	62121901	53387561	53919044	57780170	51428302	48289913	47661150	41310063	43981473	39146911	39429204
206	KEROSENE	5086021	943393	783765	771272	649577	580777	539748	436636	417009	255606	169963	286786	256128	338430
210	NAPHTA														
215	RAPE & FISH OIL	744000	744000	744000	800000	245419	250912	60409	13751	13620	27148	49046	191475	126772	258882
225	ORIMULSION						19913113	36766527	40488416	32580001	34190632	34148181	30243677	23846404	1921399
301	NATURAL GAS	76092457	86106669	90466659	102475053	114585627	132698633	156276599	164489313	178706886	187876815	186121969	193826826	193718209	195004805
303	LPG	2529846	2444287	2165623	2168768	2152828	2361756	2558236	2012873	2049212	1779679	1456930	1184179	1062049	1133994
308	REFINERY GAS	14169000	14537000	14865000	15405000	16359999	20837864	21476000	16945381	15225340	15723812	15556268	15755428	15197000	16554512
309	BIOGAS	752001	910000	898999	1077001	1279488	1753646	1985110	2390005	2635029	2612573	2870670	3020152	3331898	3542571
Total		**498684968**	**608478681**	**548864491**	**580574264**	**619300540**	**600732790**	**757386181**	**653146789**	**614305951**	**585539065**	**542293778**	**567133984**	**567406224**	**621681612**

Table 41 Detailed fuel consumption data for stationary combustion plants [GJ]

ipcc_id	fuel	fuel_gr_abbr	snap_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
1A1a	102	COAL	0101	8523090	12892052	10175750	8221270										
1A1a	102	COAL	010101	219780959	303105248	252745120	269458670	295430108	244510483	347251766	252648133	211429498	176640613	146911420	158990462	161608390	225396935
1A1a	102	COAL	010102	2118951	2653700	2250130	2269060	8604699	8380814	9032905	8671429	9022776	8238010	6224846	4970502	4684578	4578267
1A1a	102	COAL	010103					837469	526213	149470	38928	24301	33747	35480	24354	15476	33831
1A1a	102	COAL	010104					272428	269521	301136	74422						
1A1a	102	COAL	010105					20360									
1A1a	102	COAL	0102	6017000	6635000	5173000	3581000	0	0	0	0						
1A1a	102	COAL	010201					153003	20286								
1A1a	102	COAL	010202					1112251	789684	199724	64713	17914	371	371	1494	363	371
1A1a	102	COAL	010203					377837	316754	228340	48919	48071	6562	3551	439	0	0
1A1a	110	PETROLEUM COKE	0101				1239000										
1A1a	110	PETROLEUM COKE	0102														
1A1a	111	WOOD AND SIMIL.	0101			172000	515000										
1A1a	111	WOOD AND SIMIL.	010101					42966				263719	0		920	65930	304980
1A1a	111	WOOD AND SIMIL.	010102			0	0	1053223	865377	861821	1001257	1371873	2377322	2274825	2186568	3175531	5854505
1A1a	111	WOOD AND SIMIL.	010103					623575	671570	578451	644712	575350	732058	669817	747047	780123	446474
1A1a	111	WOOD AND SIMIL.	010104					78890	4410							120031	1656898
1A1a	111	WOOD AND SIMIL.	010105										1674	53468	60394	61748	369
1A1a	111	WOOD AND SIMIL.	0102	3217000	3648000	4096000	3751000	0	0	0	0						
1A1a	111	WOOD AND SIMIL.	010201					8537									
1A1a	111	WOOD AND SIMIL.	010202					44	43575	164768	190941	207278	193907	179937	249689	164347	196112
1A1a	111	WOOD AND SIMIL.	010203					3337730	3490933	3857403	3795439	3971995	3928219	3882223	4297719	4650874	5066279
1A1a	114	MUNICIP. WASTES	0101	990000	3563000	5578000	8433000										
1A1a	114	MUNICIP. WASTES	010101									1288015	1278184	1230861	2809020	3502130	143440
1A1a	114	MUNICIP. WASTES	010102		0	0	0	5110126	6527009	7152947	10831534	11715082	16937780	18305718	17902293	19002825	22524122
1A1a	114	MUNICIP. WASTES	010103					2909656	3755268	5002562	3074395	1957053	4039009	8361289	8343163	8321439	7848203
1A1a	114	MUNICIP. WASTES	010104					1665338	2027577	3191968	3025187	2806452	2452693	416975	0	0	625367
1A1a	114	MUNICIP. WASTES	010105											0	0	0	0
1A1a	114	MUNICIP. WASTES	0102	13567000	12142000	11111000	9839000	0	0	0	0						
1A1a	114	MUNICIP. WASTES	010201					6980									
1A1a	114	MUNICIP. WASTES	010202					3472288	3703267	4646064	4649086	4617704					
1A1a	114	MUNICIP. WASTES	010203					5908716	5559213	3698956	3978326	3458148	2915393	1395589	2195038	2430354	2570284
1A1a	117	STRAW	0101	479000	985000	1487000	1643000										
1A1a	117	STRAW	010101					100254	82215	610291	740153	1013770	1339800	1119600	1587710	2643060	3191917
1A1a	117	STRAW	010102	0	0	0	0	621557	1286956	1704388	1845052	1751935	1819429	1826796	1746166	1640945	1712033
1A1a	117	STRAW	010103					1126908	1297258	1361686	1174181	1180826	1058038	640340	1905033	1754340	1927521
1A1a	117	STRAW	010104												101730	1215692	1706623
1A1a	117	STRAW	0102	3524000	3843000	3915000	3806000	0	0	0	0						
1A1a	117	STRAW	010201					22040									
1A1a	117	STRAW	010202					57304	179931	114376	95990	136489	141564	150510	97600	0	0
1A1a	117	STRAW	010203					3378461	3409001	3699694	3564019	3525786	3565456	3290636	3418313	3555625	3338866
1A1a	203	RESIDUAL OIL	0101	774830	364138	1742448	741228							0	0	0	0
1A1a	203	RESIDUAL OIL	010101	7171573	10052580	8691120	8420050	22142392	11174241	16072213	7736420	11557361	7213503	4045724	5950549	5018057	7329328
1A1a	203	RESIDUAL OIL	010102	42265	16950	27100	24390	180490	253891	443479	420683	510374	762923	513002	253635	278953	334256
1A1a	203	RESIDUAL OIL	010103					252297	173028	201180	159318	115535	101551	108599	117384	120150	106040
1A1a	203	RESIDUAL OIL	010104					320163	347198	237194	302167	355440	118177	117319	1767903	6694775	9358988
1A1a	203	RESIDUAL OIL	010105	9332	9332	9332	9332	11554	4323	4888	2415	5984	4137	17206	533	656	5900
1A1a	203	RESIDUAL OIL	0102	2006000	2236000	1141000	879000	0	0	0	0						
1A1a	203	RESIDUAL OIL	010202					134116	172981	171395	140565	102376	135957	58729	86854	122795	83920
1A1a	203	RESIDUAL OIL	010203					858909	938696	1201058	874538	779146	961623	617493	611104	547566	323210
1A1a	204	GAS OIL	0101	239170	416396	641323	245263							0	0	0	0
1A1a	204	GAS OIL	010101					12386	51300	41614	194854	108730	258004	135602	122718	92395	956997
1A1a	204	GAS OIL	010102	0	0	0	0	42898	30019	153012	113506	82184	158532	278595	366847	279069	114717
1A1a	204	GAS OIL	010103					59149	40405	78104	41727	44468	61232	0	34258	36567	16629
1A1a	204	GAS OIL	010104	43987	43987	43987	43987	43987	75632	81094	54042	146795	60385	103191	40026	75242	79241
1A1a	204	GAS OIL	010105	16843	32617	34690	34750	116493	136913	99083	100449	133710	108002	68733	84634	66390	63501
1A1a	204	GAS OIL	0102	1941000	813000	744000	947000	0	0	0	0						
1A1a	204	GAS OIL	010201					27268	7000								

1A1a	204	GAS OIL	010202					174046	360676	799818	514978	418139	257831	694229	830045	166763	256178
1A1a	204	GAS OIL	010203					843648	444369	554844	509625	652349	296296	233116	354842	306816	1125856
1A1a	204	GAS OIL	010205					717					1055	0	0	0	0
1A1a	210	NAPHTA	0101														
1A1a	215	RAPE & FISH OIL	010103					33707	24000	21799	188	5213	6974				2168
1A1a	215	RAPE & FISH OIL	0102	744000	744000	744000	800000										
1A1a	215	RAPE & FISH OIL	010202														18807
1A1a	215	RAPE & FISH OIL	010203					211712	226912	38610	13563	8407	20174	48900	190810	126336	237665
1A1a	225	ORIMULSION	010101						19913113	36766527	40488416	32580001	34190632	34148181	30243677	23846404	1921399
1A1a	301	NATURAL GAS	0101								5511	21264	16787	14558	11364	2	1188
1A1a	301	NATURAL GAS	010101	4005028	4394781	3279455	4422200	8437973	10453816	12217008	14600070	20808855	21307826	23541558	20514966	19246614	20165293
1A1a	301	NATURAL GAS	010102	0	0	0	0	295111	299964	1346036	5620044	5987198	2416146	1589836	4250088	2893468	1877463
1A1a	301	NATURAL GAS	010103					2487008	1775265	1558418	1138214	958646	716525	683789	733694	657392	1057907
1A1a	301	NATURAL GAS	010104	1859206	2396900	4806049	7327221	7776734	8547713	14500109	12220262	13002948	21614378	22973678	25003005	30030786	29928352
1A1a	301	NATURAL GAS	010105	677767	1291319	2199496	4168579	8358415	16419956	22162423	24109208	26700713	26833951	25639911	27865345	27701651	27012113
1A1a	301	NATURAL GAS	0102	11033000	13655000	12350000	11420000	0	0	0	0	0					
1A1a	301	NATURAL GAS	010202					1072469	1017168	844253	660506	539227	282207	217700	286968	291201	278471
1A1a	301	NATURAL GAS	010203					6160497	5525191	3803076	2420020	1988837	1873511	1427019	1768484	1482319	1849960
1A1a	301	NATURAL GAS	010205					131795	338556	377124	230400	235829	226189	203414	228049	207211	171691
1A1a	303	LPG	0101		1000	1000	3000										
1A1a	303	LPG	010103						736	0							
1A1a	303	LPG	0102	9000	13000	10000	0	0	0		0						
1A1a	303	LPG	010203					2732					9	246	0	0	0
1A1a	308	REFINERY GAS	010101							35204	40077						
1A1a	309	BIOGAS	0101	141178	218984	29049	41826										
1A1a	309	BIOGAS	010101					16910	419	24075	19550						
1A1a	309	BIOGAS	010102	0	0	0	0	9835	0	94326	40561	50269	29597	25771	23338	20466	21787
1A1a	309	BIOGAS	010103					54324	118012	79237	111449	86924	103711	134968	123991	90125	97272
1A1a	309	BIOGAS	010104			78865	89233	199961	169040	6536							
1A1a	309	BIOGAS	010105	94822	175016	251085	405941	415191	599387	826301	1229745	1548936	1500477	1548734	1589322	1686300	1704661
1A1a	309	BIOGAS	0102	30000	30000	53000	53000	0	0	0	0						
1A1a	309	BIOGAS	010203					45538	43775	54145	33623	31287	25003	21733	11129	12650	17130
1A1a	309	BIOGAS	010205					40607									
1A1b	203	RESIDUAL OIL	010306	1309202	2038140	3568653	3490237	3336717	2333787	2244019	1622382	1106086	1089501	1322995	1442929	1362640	907082
1A1b	204	GAS OIL	010306		40029	44476	29125	49319	33321	21879	87482						3085
1A1b	303	LPG	010306		0	4600		8004	15042	20654	18492						
1A1b	308	REFINERY GAS	0103	458000	926000	1526000	15917										
1A1b	308	REFINERY GAS	010304				2067083	2355000	2289700	5069590	4081532	2996106	4172606	3907567	3978922	3855200	3804097
1A1b	308	REFINERY GAS	010306	13520108	13485940	13236820	13213580	14004999	18548164	16336522	12771044	12202506	11551206	11648701	11776506	11341800	12750415
1A1c	204	GAS OIL	010505													151	116
1A1c	301	NATURAL GAS	010502	0	0	0	0	0	399247	390587	417415	413342	409043	340514	352650	379362	322831
1A1c	301	NATURAL GAS	010504	9482284	9703068	11118697	11235480	12267791	12506433	14849859	19454575	21636547	23561526	25015663	24413386	26179968	26247274
1A1c	301	NATURAL GAS	010505	1760	3520	3520	3520	2570	4494	7551	4939	15340	13883	13889	11887	11473	12396
1A1c	309	BIOGAS	010505	6803	6803	6803	6803	5946	51779	60257	57462	31144	29028	32507	28627	31216	31791
1A2f	102	COAL	0301	8850301	8982254	6751419	7698631	5866929	4832666	4460978	4494493	4676030	3714902	3667193	3358610	2126818	1536650
1A2f	102	COAL	030102					614624	1051344	1449890	1466575	1405667	1411682	1063375	997381	998229	1569871
1A2f	102	COAL	030103					190179	182609	192925	192444	0					
1A2f	102	COAL	030311	5018873	6048697	6577274	6602369	6913652	7224934	7067609	7209034	6627624	5638061	5708047	4718458	4348589	3368675
1A2f	106	BROWN COAL BRI.	0301	4374	6680	3806	17714	2745	2031	1464	1025						
1A2f	107	COKE OVEN COKE	0301	1169318	1351052	1077654	1073318	1163151	286685	303658	295421	319382	380768	238247	223280	279401	276382
1A2f	107	COKE OVEN COKE	030318						937440	885600	930960	1006560	1030320	943920	883440	786240	693360
1A2f	110	PETROLEUM COKE	0301	300247	0	56107	122868	0	98156	110026	33598	25842	38999	285426	127924	223785	229902
1A2f	110	PETROLEUM COKE	030311	2499252	2991306	3234048	3230652	3469025	3707398	4966161	5229890	4774684	6398880	6474743	7656733	7543476	7714392
1A2f	111	WOOD AND SIMIL.	0301	5783743	5690367	5750550	5821715	4464819	4254327	4097885	4166034	4273637	4250138	4450170	4410404	5854411	5970723
1A2f	111	WOOD AND SIMIL.	030102									1776	1496	955	950	0	0
1A2f	111	WOOD AND SIMIL.	030103					481414	412555	623748	523545	412235	413749	439542	430608	410827	294774
1A2f	114	MUNICIP. WASTES	0301	28033	28033	37251	38907	26336	28516	27942	23857	28854	35287				
1A2f	114	MUNICIP. WASTES	030102									0				0	4602
1A2f	114	MUNICIP. WASTES	030311											505233	795492	1787613	1406393
1A2f	117	STRAW	0301									446	446				
1A2f	117	STRAW	030103						3085								
1A2f	117	STRAW	030105											386	91	0	0

1A2f	118	SEWAGE SLUDGE	030311												40162	0	64508	55369
1A2f	203	RESIDUAL OIL	0301	16528584	17769972	17383144	14202407	13060233	11277994	11328646	9336208	8615100	7973673	7362935	7287922	7207646	5361504
1A2f	203	RESIDUAL OIL	030102					741775	911133	788578	789663	663124	695536	714099	791893	808652	1644621
1A2f	203	RESIDUAL OIL	030103					200248	207326	165590	122783	121633	135661	140375	89987	0	0
1A2f	203	RESIDUAL OIL	030104								54439		0	0	0	0	0
1A2f	203	RESIDUAL OIL	030105												22	10	787
1A2f	203	RESIDUAL OIL	030311	1762853	2152997	2366678	2397243	2618777	2840311	1771379	1863965	2538540	885967	858853	784	591804	587464
1A2f	204	GAS OIL	0301	665894	1575562	0	0	522742	1582383	2123771	2078532	1729346	2532751	2209631	3180458	2615282	3015931
1A2f	204	GAS OIL	030102						3438			440	1327	3138	5071	199	3574
1A2f	204	GAS OIL	030103					1678	1453	11390	1015	1623	64	82107	19	0	0
1A2f	204	GAS OIL	030104								244	377	6787	51	0	897	0
1A2f	204	GAS OIL	030105			1447	1578	1578						103	511	0	0
1A2f	204	GAS OIL	030106	6098	6636	8644	2762	9433	7030	6743	8178	15603	70265	8070	9828	7066	6887
1A2f	204	GAS OIL	030315								1040	603	4950	1650	2009	681	933
1A2f	206	KEROSENE	0301	69635	45692	38315	35461	30485	24464	30937	27840	16078	8909	7552	25543	65146	48233
1A2f	215	RAPE & FISH OIL	030105													334	242
1A2f	301	NATURAL GAS	0301	22280195	23780869	23887554	25535326	29248293	30317634	29252137	29423362	29114015	31167462	28607520	30073159	29817088	29031473
1A2f	301	NATURAL GAS	030102					862925	2661779	2464665	2971625	2961903	3100115	2690206	2869052	1190136	2273628
1A2f	301	NATURAL GAS	030103					300216	64308	146812	169825	131608	126872	116411	117965	14707	118562
1A2f	301	NATURAL GAS	030104	506337	608907	664092	729919	761202	909952	2562511	3366152	5106083	6501018	6756339	6138931	6724143	6526151
1A2f	301	NATURAL GAS	030105	187	187	187	187	11210	172920	873431	960232	1157405	1160055	1556394	1641970	1545466	1543942
1A2f	301	NATURAL GAS	030106	136059	24239	37695	70154	53489	24415	15283	5288	31735	38608	50809	53712	25558	17229
1A2f	301	NATURAL GAS	030315								924066	903336	1005440	1101274	1089048	1016242	945777
1A2f	301	NATURAL GAS	030318						624960	590400	620640	671040	686880	629280	588960	524160	552240
1A2f	303	LPG	0301	1522719	1603834	1466190	1273678	1337017	1486636	1636596	1277738	1299081	991730	632947	387254	308697	353256
1A2f	308	REFINERY GAS	0301	190892	125060	102180	108420	0	0	34684	52728	26728					
1A2f	309	BIOGAS	0301	0	0	0	0	13014	126131	96199	117439	73558	32726	32593	27929	37953	33614
1A2f	309	BIOGAS	030102					6534	16370	16478	19080	16361	16116	15755	59220	71672	95546
1A2f	309	BIOGAS	030104						1053	1265	1137						
1A2f	309	BIOGAS	030105									381	269	1487	23805	18459	14205
1A4a	102	COAL	0201	87539	9010	95877	75870	90286	66065	41261	43063	2306					
1A4a	106	BROWN COAL BRI.	0201	1025	1720		8217	769	622	421	309						
1A4a	110	PETROLEUM COKE	0201	62023	104190	90150	96354	0	70415	90528	97770	70544	50434	12070	12086	5355	9003
1A4a	111	WOOD AND SIMIL.	0201	204488	204488	204488	204488	216160	273035	449435	471415	492803	642041	775926	918817	972914	973866
1A4a	111	WOOD AND SIMIL.	020105									2096	2057		97	796	0
1A4a	114	MUNICIP. WASTES	0201	914000	1011000	1071000	1099000	1182354	1274551	1222406	1179697	709930	1472645	122160	175985	0	977733
1A4a	114	MUNICIP. WASTES	020103					30550	30923	9595	7979	9588	7344	13770	12669	12594	74825
1A4a	203	RESIDUAL OIL	0201	1070494	865011	600545	517393	718786	677072	717757	729305	383913	450237	343022	173185	478286	170881
1A4a	203	RESIDUAL OIL	020103					87533	78081								
1A4a	204	GAS OIL	0201	11794783	10622868	10421008	10011485	7156617	6556065	6619841	6093376	5442142	5781168	4957566	4685349	4031236	3625867
1A4a	204	GAS OIL	020102					190782		215		75					
1A4a	204	GAS OIL	020103					72		57796	58202	53618	39101	71306	44010	43890	29646
1A4a	204	GAS OIL	020105			1361	1485	733	20330	1754	294	21	66	1277	673	743	727
1A4a	206	KEROSENE	0201	569083	209843	206978	188910	154647	124344	103314	96459	127964	117233	63008	79642	69668	74131
1A4a	301	NATURAL GAS	0201	6376293	6934201	7382035	8908566	7343015	8436587	11247402	9106736	8661696	7525335	7233923	7908341	7264139	8020520
1A4a	301	NATURAL GAS	020103					2177			2434	49460	10801	43211	67208	165296	11053
1A4a	301	NATURAL GAS	020104		0			11946	25798	31397	25514	22995	30739	23335	31001	42862	33669
1A4a	301	NATURAL GAS	020105	45985	88875	278287	350372	473892	609395	681480	866185	959184	985839	1033132	1044813	1079590	1023163
1A4a	303	LPG	0201	82757	77097	76519	122201	125183	131001	137989	128417	116413	109573	121621	119345	136552	169985
1A4a	303	LPG	020103									9					
1A4a	303	LPG	020105									803	771				
1A4a	309	BIOGAS	0201	199072	179112	83895	64492	112893	169712	173026	271951	225094	292653	310904	354917	358989	290434
1A4a	309	BIOGAS	020103							14474	39396	71226	74379	86680	84512	74286	85295
1A4a	309	BIOGAS	020104						27092								
1A4a	309	BIOGAS	020105	270479	290438	386655	406059	349088	410626	389678	404594	439292	436918	506512	504222	528119	531465
1A4b	102	COAL	0202	589051	1125243	866285	785646	618696	376645	85595	86470	127147	79262	14443	12906	15370	318
1A4b	106	BROWN COAL BRI.	0202	50600	66685	39107	80209	75963	62403	47324	48550	43847	37607	25748	32903	18922	3056
1A4b	107	COKE OVEN COKE	0202	106594	98682	103400	81220	62995	48785	36742	26634	20364	11486	5010	2871	2813	25667
1A4b	110	PETROLEUM COKE	0202	760877	697484	961122	990337	839871	734273	928841	839269	725791	705961	513190	513393	509008	511264
1A4b	111	WOOD AND SIMIL.	0202	8954433	10412433	10720473	11859633	11564240	11760665	12668890	12569083	11134265	11615183	13847545	15248320	14769200	15003101
1A4b	117	STRAW	0202	5086890	5086890	5086890	4750200	4413510	4076820	3633120	3891945	3773190	3442590	3111555	2901450	2901450	2901450
1A4b	203	RESIDUAL OIL	0202	216927	218605	167748	129878	95249	62794	66254	45933	43266	50365	35611	26881	148870	47430

1A4b	204	GAS OIL	0202	46463224	50638393	42913606	49967084	43678618	43287857	45295557	39595464	37849748	35675468	30275667	31506271	28997757	27510588
1A4b	206	KEROSENE	0202	4404777	659635	512024	520836	437788	410845	382564	287211	251843	118954	91190	159051	110143	205243
1A4b	301	NATURAL GAS	0202	17362132	20432645	21439693	24903983	24736624	26947401	30412122	28361811	29137977	28981613	27568914	29562248	28081591	29027446
1A4b	301	NATURAL GAS	020202							25676	24503	18059	31289	55319	69007	30105	63281
1A4b	301	NATURAL GAS	020204	0	7932	499046	776351	1022812	1094868	1448246	1488432	1575546	1554382	1439173	1450266	1392257	1451228
1A4b	303	LPG	0202	669665	521639	442269	672725	588599	628367	653211	510109	545681	624403	650995	648947	607682	596053
1A4c	102	COAL	0203	2457889	2853706	2203581	2106300	2294953	1797999	1446423	1238716	903571	708372	1079213	1234026	856215	1503478
1A4c	106	BROWN COAL BRI.	0203	59933	91738	52411	22106	12023	9553	6844	4447	3898					
1A4c	110	PETROLEUM COKE	0203	837124	610588	472601	500171	0	239582	285866	322604	201054	89239	6154	3328	31	754
1A4c	111	WOOD AND SIMIL.	0203	87150	87150	87150	68363	68363	68363	86804	96800	230244	230875	170093	147164	147000	147000
1A4c	111	WOOD AND SIMIL.	020304									567	13851	216	435		
1A4c	117	STRAW	0203	3391260	3391260	3391260	3166800	2942340	2717880	2422080	2594630	2515460	2295060	2074370	1934300	1934300	1934300
1A4c	117	STRAW	020302								5800	5800	5800	5800	5800	5800	5800
1A4c	203	RESIDUAL OIL	0203	1223716	1295951	1634018	1687023	1942109	2616552	3070977	2492455	2563430	2396266	1778526	1640210	1365228	910801
1A4c	203	RESIDUAL OIL	020302									9051	1105	3269	2069	1964	6081
1A4c	203	RESIDUAL OIL	020304									9345	11104	4017	4570	3335	3417
1A4c	204	GAS OIL	0203	502852	1166512	1117213	837382	455397	1280853	1829800	1972963	1609942	2347866	2181257	2711181	2420922	2612416
1A4c	204	GAS OIL	020302								7						
1A4c	204	GAS OIL	020304							3855	2324			4774	2723	4846	6315
1A4c	206	KEROSENE	0203	42526	28223	26448	26065	26657	21124	22933	25126	21124	10510	8213	22550	11171	10823
1A4c	215	RAPE & FISH OIL	020304											146	665	102	0
1A4c	301	NATURAL GAS	0203	2222000	2680002	2385006	2462538	2485322	2559680	2666407	2644836	2476128	2241939	2383877	2687167	2543009	2531111
1A4c	301	NATURAL GAS	020303						0	5959	26127	65805	77171	61906	59503	64374	53821
1A4c	301	NATURAL GAS	020304	104224	104224	135847	160657	282141	961133	1796227	2620381	3354165	3379285	3109418	2934589	3116038	2855572
1A4c	303	LPG	0203	245705	227717	165045	97164	91293	99974	109786	78117	87225	53193	51121	28633	9118	14700
1A4c	309	BIOGAS	0203					2750	4455	132108	26121	34614	30392	76487	80321	162277	163605
1A4c	309	BIOGAS	020304	9647	9647	9647	9647	6897	15795	17005	17897	25943	41304	76539	108819	239386	455766
Total				498684968	608478681	548864491	580574264	619300540	600732790	757386181	653146789	614305951	585539065	542293778	567133984	567406224	621681612

Appendix 5 Emission factors

Table 42 CO_2 emission factors.

Fuel	Emission factor		Unit	Reference type	IPCC fuel
	Biomass	Fossil fuel			Category
Coal		95	kg/GJ	Country specific	Solid
Brown coal briquettes		94,6	kg/GJ	IPCC reference manual	Solid
Coke oven coke		108	kg/GJ	IPCC reference manual	Solid
Petroleum coke		92	kg/GJ	Country specific	Liquid
Wood	102		kg/GJ	Corinair	Biomass
Municipal waste	94,5	17,6	kg/GJ	Country specific	Biomass / Other fuels
Straw	102		kg/GJ	Country specific	Biomass
Residual oil		78	kg/GJ	Corinair	Liquid
Gas oil		74	kg/GJ	Corinair	Liquid
Kerosene		72	kg/GJ	Corinair	Liquid
Fish & rape oil	74		kg/GJ	Country specific	Biomass
Orimulsion		80	kg/GJ	Country specific	Liquid
Natural gas		57,19	kg/GJ	Country specific	Gas
LPG		65	kg/GJ	Corinair	Liquid
Refinery gas		56,9	kg/GJ	Country specific	Liquid
Biogas	83,6		kg/GJ	Country specific	Biomass

Time-series for natural gas and municipal waste are shown below. All other emission factors are the same for 1990-2003.

Table 43 CO_2 emission factors, time-series.

Year	Natural gas [kg/GJ]	Municipal waste, plastic [kg/GJ]	Municipal waste biomass [kg/GJ]
1990	56,9	22,5	+89,6
1991	56,9	22,5	+89,6
1992	56,9	20,5	+91,6
1993	56,9	19,6	+92,5
1994	56,9	19,6	+92,5
1995	56,9	18,5	+93,6
1996	56,9	17,6	+94,5
1997	56,9	17,6	+94,5
1998	56,9	17,6	+94,5
1999	56,9	17,6	+94,5
2000	57,1	17,6	+94,5
2001	57,25	17,6	+94,5
2002	57,28	17,6	+94,5
2003	57,19	17,6	+94,5

Table 44 CH_4 emission factors and references 2003.

Fuel	ipcc_id	SNAP_id	Emission factor [g/GJ]	Reference
COAL	1A1a	010101, 010102, 010103	1,5	EMEP/Corinair 2004
COAL	1A1a, 1A2f, 1A4b, 1A4c	010202, 010203, 0301, 0202, 0203	15	EMEP/Corinair 2004
BROWN COAL BRI.	all	all	15	EMEP/Corinair 2004, assuming same emission factor as for coal
COKE OVEN COKE	all	all	15	EMEP/Corinair 2004, assuming same emission factor as for coal
PETROLEUM COKE	all	all	15	EMEP/Corinair 2004
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	2	Nielsen & Illerup 2003
WOOD AND SIMIL.	1A4a, 1A4b, 1A4c	0201, 0202, 0203	200	EMEP/Corinair 2004
WOOD AND SIMIL.	1A1a, 1A2f	010105, 010202, 010203, 0301, 030102, 030103	32	EMEP/Corinair 2004
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	0,59	Nielsen & Illerup 2003
MUNICIP. WASTES	1A1a, 1A2f, 1A4a	all other	6	EMEP/Corinair 2004
STRAW	1A1a	010102, 010103	0,5	Nielsen & Illerup 2003
STRAW	1A1a, 1A2f, 1A4c	010202, 010203, 020302, 030105	32	EMEP/Corinair 2004
STRAW	1A4b, 1A4c	0202, 0203	200	EMEP/Corinair 2004
RESIDUAL OIL	all	all	3	EMEP/Corinair 2004
GAS OIL	all	all	1,5	EMEP/Corinair 2004
KEROSENE	all	all	7	EMEP/Corinair 2004
FISH & RAPE OIL	all	all	1,5	EMEP/Corinair 2004, assuming same emission factor as gas oil
ORIMULSION	1A1a	010101	3	EMEP/Corinair 2004, assuming same emission factor as residual oil
NATURAL GAS	1A1a	0101, 010101, 010102, 010202	6	DGC 2001
NATURAL GAS	1A1a	010103, 010203	15	Gruijthuijsen & Jensen 2000
NATURAL GAS	1A1a, 1Ac, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010504, 030104, 020104, 020303	1,5	Nielsen & Illerup 2003
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 010505, 030105, 020105, 020204, 020304	1) 520	Nielsen & Illerup 2003
NATURAL GAS	1A1c, 1A2f, 1A4a, 1A4b, 1A4c	010502, 0301, 0201, 0202, 0203	6	DGC 2001
NATURAL GAS	1A2f, 1A4a, 1A4b	030103, 030106, 020103, 020202	15	Gruijthuijsen & Jensen 2000
LPG	all	all	1	EMEP/Corinair 2004
REFINERY GAS	1A1b	010304	1,5	EMEP/Corinair 2004
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	1) 323	Nielsen & Illerup 2003
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	all other	4	EMEP/Corinair 2004

1) 2003 emission factor. Time-series is shown below

Time-series for CH_4 emission factors for gas engines are shown below. All other CH_4 emission factors are the same for 1990-2003.

Table 45 CH_4 emission factors, time-series.

Year	Natural gas fuelled engines Emission factor [g/GJ]	Biogas fuelled engines Emission factor [g/GJ]
1990	257	239
1991	299	251
1992	347	264
1993	545	276
1994	604	289
1995	612	301
1996	596	305
1997	534	310
1998	525	314
1999	524	318
2000	520	323
2001	520	323
2002	520	323
2003	520	323

Table 46 N_2O emission factors and references 2003.

Fuel	ipcc_id	SNAP_id	Emission factor [g/GJ]	Reference
COAL	all	all	3	EMEP/Corinair 2004
BROWN COAL BRI.	all	all	3	EMEP/Corinair 2004
COKE OVEN COKE	all	all	3	EMEP/Corinair 2004
PETROLEUM COKE	all	all	3	EMEP/Corinair 2004
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	0,8	Nielsen & Illerup 2003
WOOD AND SIMIL.	1A1a	010105, 010202, 010203	4	EMEP/Corinair 2004
WOOD AND SIMIL.	1A2f, 1A4a, 1A4b, 1A4c	all	4	EMEP/Corinair 2004
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	1,2	Nielsen & Illerup 2003
MUNICIP. WASTES	1A1a	010203	4	EMEP/Corinair 2004
MUNICIP. WASTES	1A2f, 1A4a	030102, 0201, 020103	4	EMEP/Corinair 2004
STRAW	1A1a	010102, 010103	1,4	Nielsen & Illerup 2003
STRAW	1A1a	010202, 010203	4	EMEP/Corinair 2004
STRAW	1A2f, 1A4b, 1A4c	all	4	EMEP/Corinair 2004
RESIDUAL OIL	all	all	2	EMEP/Corinair 2004
GAS OIL	all	all	2	EMEP/Corinair 2004
KEROSENE	all	all	2	EMEP/Corinair 2004
FISH & RAPE OIL	all	all	2	EMEP/Corinair 2004, assuming same emission factor as gas oil
ORIMULSION	1A1a	010101	2	EMEP/Corinair 2004, assuming same emission factor as residual oil
NATURAL GAS	1A1a	0101, 010101, 010102, 010103, 010202, 010203	1	EMEP/Corinair 2004
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010504, 030104, 020104, 020303	2,2	Nielsen & Illerup 2003
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 010505, 030105, 020105, 020204, 020304	1,3	Nielsen & Illerup 2003
NATURAL GAS	1A1c, 1A2f, 1A4a, 1A4b, 1A4c	010502, 0301, 030103, 030106, 0201, 020103, 0202, 020202, 0203	1	EMEP/Corinair 2004
LPG	all	all	2	EMEP/Corinair 2004
REFINERY GAS	all	all	2,2	EMEP/Corinair 2004
BIOGAS	1A1a	010102, 010103, 010203	2	EMEP/Corinair 2004
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	0,5	Nielsen & Illerup 2003
BIOGAS	1A2f, 1A4a, 1A4c	0301, 030102, 0201, 020103, 0203	2	EMEP/Corinair 2004

The same N_2O emission factors are applied for 1990-2003

Table 47 SO_2, NO_X, NMVOC and CO emission factors and references 2003.

Fuel	IPCC sector	SNAP	SO_2 [g/GJ]	Ref.	NO_X [g/GJ]	Ref.	NMVOC [g/GJ]	Ref.	CO [g/GJ]	Ref.
COAL	1A1a	010101, 010102, 010103	**61**	18	**144**	18	**1,5**	1	**10**	3
COAL	1A1a, 1A2f, 1A4c	010202, 010203, 0301, 0203	**574**	19	**95**	4	**15**	1	**10**	1
COAL	1A4b	0202	**574**	19	**95**	4	**15**	1	**2000**	32
BROWN COAL BRI.	1A4b	0202	**574**	29	**95**	29	**15**	29	**2000**	29
COKE OVEN COKE	1A2f	0301	**574**	29	**95**	29	**15**	29	**10**	29
COKE OVEN COKE	1A4b	0202	**574**	29	**95**	29	**15**	29	**2000**	29
PETROLEUM COKE	1A2f	0301	**605**	20	**95**	29	**1,5**	1	**61**	4
PETROLEUM COKE	1A4a, 1A4b, 1A4c	0201, 0202, 0203	**605**	20	**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, 21	**130**	22, 21, 4	**48**	1	**50**	3
WOOD AND SIMIL.	1A1a, 1A2f	010202, 010203, 0301, 030102, 030103	**25**	22, 21	**130**	22, 21, 4	**48**	1	**240**	4
WOOD AND SIMIL.	1A4a, 1A4c	0201, 020105, 0203	**25**	22, 21	**130**	22, 21, 4	**600**	1	**240**	4
WOOD AND SIMIL.	1A4b	0202	**25**	22, 21	**120**	22	**600**	1, 32	**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, 1A4c	010202, 010203, 030105, 020302	**130**	5	**153**	4, 28	**50**	1	**325**	4, 5
STRAW	1A4b, 1A4c	0201, 0203	**130**	5	**153**	4, 28	**600**	1	**4000**	1,6,7
RESIDUAL OIL	1A1a	0101, 010101, 010102, 010103, 010104, 010105	**290**	9	**144**	18	**3**	1	**15**	3
RESIDUAL OIL	1A1a, 1A4a, 1A4b, 1A4c	010202, 010203, 0201, 0202, 0203, 020302	**344**	25, 10, 24	**142**	4	**3**	1	**30**	1
RESIDUAL OIL	1A1b	010306	**537**	33	**142**	4	**3**	1	**30**	1
RESIDUAL OIL	1A2f	0301, 030102, 030103	**344**	25, 10, 24	**130**	28	**3**	1	**30**	1
RESIDUAL OIL	1A2f	030104	**344**	25, 10, 24	**130**	28	**3**	1	**15**	1
RESIDUAL OIL	1A2f	030105	**344**	25, 10, 24	**130**	28	**3**	1	**100**	1
RESIDUAL OIL	1A4c	020304	**344**	25, 10, 24	**142**	4	**3**	1	**100**	1
GAS OIL	1A1a	0101, 010101, 010102	**23**	27	**249**	18	**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**	1	**100**	1	**100**	1
GAS OIL	1A1a	010103	**23**	27	**65**	28	**1,5**	1	**15**	3
GAS OIL	1A1a, 1A1b, 1A2f	010202, 010203, 010306, 0301, 030102, 030103, 030106	**23**	27	**65**	28	**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	010103	**1**	37	**220**	38	**1,5**	15	**15**	15
FISH & RAPE OIL	1A1a	010202, 010203	**1**	37	**65**	15	**1,5**	15	**15**	15
FISH & RAPE OIL	1A2f, 1A4c	030105, 020304	**1**	37	**700**	15	**100**	15	**100**	15
ORIMULSION	1A1a	010101	**12**	34	**86**	34	**3**	16	**15**	16
NATURAL GAS	1A1a	0101, 010101, 010102	**0,3**	17	**115**	9	**2**	14	**15**	3
NATURAL GAS	1A1a, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 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, 010205, 010505, 030105, 020105, 020204, 020304	**0,3**	17	**168**	31	**117**	31	**175**	31
NATURAL GAS	1A1a, 1A2f	010103, 010202, 010203, 0301, 030103, 030106	**0,3**	17	**42**	36	**2**	14	**28**	4
NATURAL GAS	1A1c	010504	**0,3**	17	**250**	1, 8, 32	**1,4**	31	**6,2**	31
NATURAL GAS	1A4a, 1A4c	0201, 020103, 0203	**0,3**	17	**30**	1, 4, 11	**2**	14	**28**	4
NATURAL GAS	1A4b	0202, 020202	**0,3**	17	**30**	1, 4, 11	**4**	11	**20**	11
LPG	1A1a, 1A2f	010203, 0301	**0,13**	23	**96**	32	**2**	1	**25**	1
LPG	1A4a, 1A4c	0201, 0203	**0,13**	23	**71**	32	**2**	1	**25**	1
LPG	1A4b	0202	**0,13**	23	**47**	32	**2**	1	**25**	1
REFINERY GAS	1A1b	010304	**1**	2	**170**	9	**1,4**	35	**6,2**	35
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	010102, 010103, 010203, 0301, 0201, 020103, 0203	**25**	26	**28**	4	**4**	1	**36**	4
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	**19,2**	31	**540**	31	**14**	31	**273**	31
BIOGAS	1A2f	030102	**25**	26	**54**	4	**4**	1	**36**	4

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Time-series for emission factors for SO_2, NO_X, NMVOC and CO that are not the same in 1990-2003 are shown below. All other factors are constant in 1990-2003.

Table 48 SO_2, NO_X, NMVOC and CO emission factors time-series [g/GJ].

pol.	fuel	snap_id	ipcc_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
SO2	COAL	0101	1A1a	506	571	454	386										
SO2	COAL	010101	1A1a	506	571	454	386	343	312	420	215	263	193	64	47	45	61
SO2	COAL	010102	1A1a	506	571	454	386	343	312	420	215	263	193	64	47	45	61
SO2	COAL	010103	1A1a					343	312	420	215	263	193	64	47	45	61
SO2	COAL	010104	1A1a					343	312	420	215						
SO2	COAL	0102	1A1a	574	574	574	574	574	574	574	574						
SO2	COAL	0201	1A4a	574	574	574	574	574	574	574	574	574					
SO2	COAL	0202	1A4b	574	574	574	574	574	574	574	574	574	574	574	574	574	574
SO2	COAL	0203	1A4c	574	574	574	574	574	574	574	574	574	574	574	574	574	574
SO2	COAL	0301	1A2f	574	574	574	574	574	574	574	574	574	574	574	574	574	574
SO2	BROWN COAL BRI.	0201	1A4a	574	574		574	574	574	574	574						
SO2	BROWN COAL BRI.	0202	1A4b	574	574	574	574	574	574	574	574	574	574	574	574	574	574
SO2	BROWN COAL BRI.	0203	1A4c	574	574	574	574	574	574	574	574	574					
SO2	BROWN COAL BRI.	0301	1A2f	574	574	574	574	574	574	574	574						
SO2	COKE OVEN COKE	0202	1A4b	574	574	574	574	574	574	574	574	574	574	574	574	574	574
SO2	COKE OVEN COKE	0301	1A2f	574	574	574	574	574	574	574	574	574	574	574	574	574	574
SO2	PETROLEUM COKE	0201	1A4a	787	787	787	787	787	787	787	787	787	787	787	605	605	605
SO2	PETROLEUM COKE	0202	1A4b	787	787	787	787	787	787	787	787	787	787	787	605	605	605
SO2	PETROLEUM COKE	0203	1A4c	787	787	787	787	787	787	787	787	787	787	787	605	605	605
SO2	PETROLEUM COKE	0301	1A2f	787	787	787	787	787	787	787	787	787	787	787	605	605	605
SO2	MUNICIP. WASTES	0101	1A1a	116	116	95	73										
SO2	MUNICIP. WASTES	010102	1A1a		116	95	73	52	30			26	25	23,9	23,9	23,9	23,9
SO2	MUNICIP. WASTES	010103	1A1a					52	30	29	28	26	25	23,9	23,9	23,9	23,9
SO2	MUNICIP. WASTES	010104	1A1a					52	30	29	28	26	25	23,9	23,9	23,9	23,9
SO2	MUNICIP. WASTES	0102	1A1a	138	131	124	117	110	103	95	88						
SO2	MUNICIP. WASTES	010202	1A1a					110	103								
SO2	MUNICIP. WASTES	010203	1A1a					110	103	95	88	81	74	67	67	67	67

SO2	MUNICIP. WASTES	0201	1A4a	138	131	124	117	110	103	95	88	81	74	67	67	67	67
SO2	MUNICIP. WASTES	020103	1A4a					110	103	95	88	81	74	67	67	67	67
SO2	MUNICIP. WASTES	0301	1A2f	138	131	124	117	110	103	95	88	81	74				
SO2	MUNICIP. WASTES	030102	1A2f									81				67	67
SO2	RESIDUAL OIL	0101	1A1a	446	470	490	475							403	315	290	290
SO2	RESIDUAL OIL	010101	1A1a						351	408	344	369	369	403	315	290	290
SO2	RESIDUAL OIL	010102	1A1a	446	470	490	475	1564	351	408	344	369	369	403	315	290	290
SO2	RESIDUAL OIL	010103	1A1a					1564	351	408	344	369	369	403	315	290	290
SO2	RESIDUAL OIL	010104	1A1a					1564	351	408	344	369	369	403	315	290	290
SO2	RESIDUAL OIL	010105	1A1a	446	470	490	475	1564	351	408	344	369	369	403	315	290	290
SO2	RESIDUAL OIL	0102	1A1a	495	495	495	495	495	495	495	344						
SO2	RESIDUAL OIL	010202	1A1a					495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	010203	1A1a					495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	010306	1A1b	643	38	222	389				649	649	649	649	649	649	537
SO2	RESIDUAL OIL	0201	1A4a	495	495	495	495	495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	0202	1A4b	495	495	495	495	495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	0203	1A4c	495	495	495	495	495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	0301	1A2f	495	495	495	495	495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	030102	1A2f					495	495	495	344	344	344	344	344	344	344
SO2	RESIDUAL OIL	030103	1A2f					495	495	495	344	344	344	344	344	344	344
SO2	GAS OIL	0101	1A1a	94	94	94	94							23	23	23	23
SO2	GAS OIL	010101	1A1a					94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	010102	1A1a	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	010103	1A1a					94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	010104	1A1a	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	010105	1A1a	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	0102	1A1a	94	94	94	94	94	23	23	23						
SO2	GAS OIL	010201	1A1a					94	23								
SO2	GAS OIL	010202	1A1a					94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	010203	1A1a					94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	010205	1A1a					94					23	23	23	23	23
SO2	GAS OIL	010306	1A1b		94	94	94	94	23	23	23						23
SO2	GAS OIL	0201	1A4a	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	020102	1A4a					94		23		23					
SO2	GAS OIL	020103	1A4a					94		23	23	23	23	23	23	23	23
SO2	GAS OIL	020105	1A4a			94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	0202	1A4b	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	0203	1A4c	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	0301	1A2f	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	030103	1A2f					94	23	23	23	23	23	23	23	23	23
SO2	GAS OIL	030105	1A2f			94	94	94						23	23	23	23
SO2	GAS OIL	030106	1A2f	94	94	94	94	94	23	23	23	23	23	23	23	23	23
SO2	ORIMULSION	010101	1A1a							147	149				10	12	12
NOX	COAL	0101	1A1a	342	384	294	289										
NOX	COAL	010101	1A1a	342	384	294	289	267	239	250	200	177	152	129	122	130	144
NOX	COAL	010102	1A1a	342	384	294	289	267	239	250	200	177	152	129	122	130	144
NOX	COAL	010103	1A1a					267	239	250	200	177	152	129	122	130	144
NOX	COAL	010104	1A1a					267	239	250	200						
NOX	COAL	010202	1A1a					200	200	200	200	200	200	95	95	95	95
NOX	COAL	010203	1A1a					200	200	200	200	200	200	95	95	95	95
NOX	COAL	0202	1A4b	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	COAL	0203	1A4c	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	COAL	0301	1A2f	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	BROWN COAL BRI.	0202	1A4b	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	COKE OVEN COKE	0202	1A4b	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	COKE OVEN COKE	0301	1A2f	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	PETROLEUM COKE	0301	1A2f	200	200	200	200	200	200	200	200	200	200	95	95	95	95
NOX	RESIDUAL OIL	0101	1A1a	342	384	294	289							129	122	130	144
NOX	RESIDUAL OIL	010101	1A1a						239	250	200	177	152	129	122	130	144
NOX	RESIDUAL OIL	010102	1A1a	342	384	294	289	267	239	250	200	177	152	129	122	130	144
NOX	RESIDUAL OIL	010103	1A1a					267	239	250	200	177	152	129	122	130	144
NOX	RESIDUAL OIL	010104	1A1a					267	239	250	200	177	152	129	122	130	144
NOX	RESIDUAL OIL	010105	1A1a	342	384	294	289	267	239	250	200	177	152	129	122	130	144
NOX	GAS OIL	0101	1A1a	220	220	220	220							220	220	220	249
NOX	GAS OIL	010101	1A1a					220	220	220	220	220	220	220	220	220	249
NOX	GAS OIL	010102	1A1a	220	220	220	220	220	220	220	220	220	220	220	220	220	249
NOX	GAS OIL	0102	1A1a	100	95	90	85	80	75	70	65						
NOX	GAS OIL	010201	1A1a					80	75								
NOX	GAS OIL	010202	1A1a					80	75	70	65	65	65	65	65	65	65
NOX	GAS OIL	010203	1A1a					80	75	70	65	65	65	65	65	65	65
NOX	GAS OIL	010306	1A1b		95	90	85	80	75	70	65						65
NOX	GAS OIL	0301	1A2f	100	95	90	85	80	75	70	65	65	65	65	65	65	65
NOX	GAS OIL	030102	1A2f						75			65	65	65	65	65	65
NOX	GAS OIL	030103	1A2f					80	75	70	65	65	65	65	65	65	65
NOX	GAS OIL	030106	1A2f	100	95	90	85	80	75	70	65	65	65	65	65	65	65
NOX	FISH & RAPE OIL	0102	1A1a	100	95	90	85										
NOX	FISH & RAPE OIL	010203	1A1a					80	75	70	65	65	65	65	65	65	65
NOX	ORIMULSION	010101	1A1a							139	138				88	86	86
NOX	NATURAL GAS	0101	1A1a								115	115	115	115	115	115	115
NOX	NATURAL GAS	010104	1A1a	161	157	153	149	145	141	138	134	131	127	124	124	124	124
NOX	NATURAL GAS	010105	1A1a	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NOX	NATURAL GAS	0102	1A1a	42	42	42	42	42	42	42	42	42					
NOX	NATURAL GAS	010205	1A1a					199	194	193	170	167	167	168	168	168	168

NOX	NATURAL GAS	010505	1A1c	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NOX	NATURAL GAS	0201	1A4a	30	30	30	30	30	30	30	30	30	30	30	30	30	30
NOX	NATURAL GAS	020104	1A4a		157			145	141	138	134	131	127	124	124	124	124
NOX	NATURAL GAS	020105	1A4a	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NOX	NATURAL GAS	0202	1A4b	30	30	30	30	30	30	30	30	30	30	30	30	30	30
NOX	NATURAL GAS	020204	1A4b	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NOX	NATURAL GAS	0203	1A4c	30	30	30	30	30	30	30	30	30	30	30	30	30	30
NOX	NATURAL GAS	020303	1A4c						141	138	134	131	127	124	124	124	124
NOX	NATURAL GAS	020304	1A4c	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NOX	NATURAL GAS	0301	1A2f	42	42	42	42	42	42	42	42	42	42	42	42	42	42
NOX	NATURAL GAS	030104	1A2f	161				145	141	138	134	131	127	124	124	124	124
NOX	NATURAL GAS	030105	1A2f	276	241	235	214	199	194	193	170	167	167	168	168	168	168
NOX	NATURAL GAS	030106	1A2f	42	42	42	42	42	42	42	42	42	42	42	42	42	42
NOX	BIOGAS	010105	1A1a	711	696	681	665	650	635	616	597	578	559	540	540	540	540
NOX	BIOGAS	010505	1A1c	711	696	681	665	650	635	616	597	578	559	540	540	540	540
NOX	BIOGAS	020105	1A4a	711	696	681	665	650	635	616	597	578	559	540	540	540	540
NOX	BIOGAS	020304	1A4c	711	696	681	665	650	635	616	597	578	559	540	540	540	540
NOX	BIOGAS	030105	1A2f									578	559	540	540	540	540
NMVOC	NATURAL GAS	010105	1A1a	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVOC	NATURAL GAS	010205	1A1a					136	137	134	120	118	118	117	117	117	117
NMVOC	NATURAL GAS	010505	1A1c	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVOC	NATURAL GAS	020105	1A4a	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVOC	NATURAL GAS	020204	1A4b	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVOC	NATURAL GAS	020304	1A4c	58	67	78	122	136	137	134	120	118	118	117	117	117	117
NMVOC	NATURAL GAS	030105	1A2f	58	67	78	122	136	137	134	120	118	118	117	117	117	117
CO	WOOD AND SIMIL.	0102	1A1a	400	373	347	320	293	267	240	240						
CO	WOOD AND SIMIL.	010202	1A1a					293	267	240	240	240	240	240	240	240	240
CO	WOOD AND SIMIL.	010203	1A1a					293	267	240	240	240	240	240	240	240	240
CO	WOOD AND SIMIL.	0201	1A4a	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	WOOD AND SIMIL.	0203	1A4c	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	WOOD AND SIMIL.	0301	1A2f	400	373	347	320	293	267	240	240	240	240	240	240	240	240
CO	WOOD AND SIMIL.	030103	1A2f					293	267	240	240	240	240	240	240	240	240
CO	MUNICIP. WASTES	0102	1A1a	100	85	70	55	40	25	10	10						
CO	MUNICIP. WASTES	010202	1A1a					40	25								
CO	MUNICIP. WASTES	010203	1A1a					40	25	10	10	10	10	10	10	10	10
CO	MUNICIP. WASTES	0201	1A4a	100	85	70	55	40	25	10	10	10	10	10	10	10	10
CO	MUNICIP. WASTES	020103	1A4a					40	25	10	10	10	10	10	10	10	10
CO	MUNICIP. WASTES	0301	1A2f	100	85	70	55	40	25	10	10	10	10				
CO	STRAW	0102	1A1a	600	554	508	463	417	371	325	325						
CO	STRAW	010202	1A1a					417	371	325	325	325	325	325	325	325	325
CO	STRAW	010203	1A1a					417	371	325	325	325	325	325	325	325	325
CO	STRAW	0202	1A4b	8500	8500	8500	8500	8500	7500	6500	5500	4500	4000	4000	4000	4000	4000
CO	STRAW	0203	1A4c	8500	8500	8500	8500	8500	7500	6500	5500	4500	4000	4000	4000	4000	4000
CO	NATURAL GAS	010105	1A1a	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	NATURAL GAS	010205	1A1a					216	212	211	174	174	174	175	175	175	175
CO	NATURAL GAS	010505	1A1c	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	NATURAL GAS	020105	1A4a	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	NATURAL GAS	020204	1A4b	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	NATURAL GAS	020304	1A4c	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	NATURAL GAS	030105	1A2f	181	202	203	217	216	212	211	174	174	174	175	175	175	175
CO	BIOGAS	010105	1A1a	230	234	239	243	248	252	256	260	265	269	273	273	273	273
CO	BIOGAS	010505	1A1c	230	234	239	243	248	252	256	260	265	269	273	273	273	273
CO	BIOGAS	020105	1A4a	230	234	239	243	248	252	256	260	265	269	273	273	273	273
CO	BIOGAS	020304	1A4c	230	234	239	243	248	252	256	260	265	269	273	273	273	273
CO	BIOGAS	030105	1A2f									265	269	273	273	273	273

Table 49 PM emission factors and references 2003.

Fuel	IPCC sector	SNAP	TSP [g/GJ]	Reference	PM_{10} [g/GJ]	Reference	$PM_{2.5}$ [g/GJ]	Reference
COAL	1A1a	010101, 010102, 010103	3	12	2,6	12	2,1	12
COAL	1A1a	010202, 010203	6	9	6	9	5	9
COAL	1A2f, 1A4b, 1A4c	0301, 0202, 0203	17	6	12	14	7	14
BROWN COAL BRI.	1A4b	0202	17	16	12	16	7	16
COKE OV.COKE	1A2f, 1A4b	0301, 0202	17	16	12	16	7	16
PETROLEUM COKE	1A2f	0301	10	9	7	9	3	9
PETROLEUM COKE	1A4a, 1A4b, 1A4c	0201, 0202, 0203	100	9	60	9	30	9
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	7,9	3	1,94	3	1,23	3
WOOD AND SIMIL.	1A1a, 1A2f	010105, 010202, 010203, 0301, 030102, 030103	19	1	13	2	10	2
WOOD AND SIMIL.	1A4a, 1A4c	0201, 020105, 0203	143	1	143	9	135	9
WOOD AND SIMIL.	1A4b	0202	715	17	679	17	643	17
MUNICIP. WASTES	1A1a	010102, 010103, 010104, 010105	2,02	3	1,126	3	1,084	3
MUNICIP. WASTES	1A1a, 1A2f, 1A4a	010203, 030102, 0201, 020103	6	10	5	11	4	11
STRAW	1A1a	010102, 010103	3,97	3	0,133	3	0,102	3
STRAW	1A1a, 1A2f, 1A4c	010202, 010203, 030105, 020302	21	1	15	2	12	2
STRAW	1A4b, 1A4c	0202, 0203	234	4	222	5	211	5
RESIDUAL OIL	1A1a	0101, 010101, 010102, 010103, 010104, 010105, 010202, 010203	3	9	3	9	2,5	9
RESIDUAL OIL	1A1b	010306	50	9	40	9	35	9
RESIDUAL OIL	1A2f, 1A4a, 1A4b, 1A4c	0301, 030102, 030103, 030104, 030105, 0201, 0202, 0203, 020302	14	6	10,5	13	7	13
RESIDUAL OIL	1A4c	Engines: 020304	60	9	50	9	40	9
GAS OIL	all	all	5	9	5	9	5	9
KEROSENE	all	all	5	9	5	9	5	9
FISH & RAPE OIL	all	all	3	15	3	15	3	15
ORIMULSION	1A1a	010101	1,9	12	1,8	12	1,6	12
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	9	0,1	9	0,1	9
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010504, 030104, 020104, 020303	0,1	3	0,061	3	0,051	3
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 010505, 030105, 020105, 020204, 020304	0,76	3	0,189	3	0,161	3
LPG	all	all	0,2	9	0,2	9	0,2	9
REFINERY GAS	1A1b	010304	5	9	5	9	5	9
BIOGAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas engines: 010105, 010505, 030105, 020105, 020304	2,63	3	0,451	3	0,206	3
BIOGAS	1A1a, 1A2f, 1A4a, 1A4c	010102, 010103, 010203, 0301, 030102, 0201, 020103, 0203	1,5	6	1,5	7	1,5	7

1. Danish legislation, Miljøstyrelsen 2001. Luftvejledningen, Begrænsning af luftforurening fra virksomheder, Vejledning fra Miljøstyrelsen nr 2 2001
2. Particulate size distribution for wood and straw combustion in power plants refers to the TNO CEPMEIP emission factor database 2001 (wood). Available on the internet at: http://www.air.sk/tno/cepmeip/
3. 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, whith an english summary). Available on the Internet at :http://www.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR442.pdf
4. German, L., 2003. The Danish Technological Institute, Personal communication, rough estimate
5. Particulate size distribution for wood and straw combustion in residential plants refers to the TNO CEPMEIP emission factor database 2001 (wood). Available on the internet at: http://www.air.sk/tno/cepmeip/
6. 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)
7. All TSP emission is assumed to be <2,5µm (NERI assumption)
8. -
9. The TNO CEPMEIP emission factor database 2001. Available on the internet at: http://www.air.sk/tno/cepmeip/
10. Implied emission factor calculation based on annual environmental reports of a large number of municipal waste incineration plants, 2000
11. Particulate size distribution is unknown. The PM_{10} fraction is assumed to equal 85% of TSP and the $PM_{2.5}$ fraction is assumed to equal 70% of TSP (NERI assumption)
12. Livbjerg, 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)
13. 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/
14. 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/
15. Assuming same emission factors as for gas oil (NERI assumption).
16. Same emission factor as for coal is assumed (NERI assumption)
17. Illerup, J.B., Nielsen, M. 2004. Improved PM emission inventory for residential wood combustion. Available on the internet at: http://www.dmu.dk/NR/rdonlyres/11C23CE2-582B-48F0-8EBD-FF3BA608F2E2/3319/PMworkshopDKresidentialwoodburning_.pdf. The poster have been based on Sternhufvud et al. 2004: Sternhufvud, C., Karvosenoja, N., Illerup, J., Kindbom, K., Lükewille, A., Johansson, M. Jensen, D. 2003. Particulate matter emissions and abatement options in residential wood burning in the Nordic countries.

Time series have been estimated for the PM emission factors for residential wood combustion. All other emission factors are constant in 2000-2003. The time series for residential wood combustion are shown below.

Table 49b PM emission factors, time series

	2000	2001	2002	2003
TSP	807	743	720	715
PM_{10}	767	706	684	679
$PM_{2.5}$	726	669	648	643

Table 50 HM emission factors and references 2003.

Fuel	IPCC 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
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
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
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
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
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 0301 030102 030103 0201 020105 0202 0203			6,8	1			6,8	1	6,8	1			3,4	1			136	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	137,57	1			359,5	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, 1A4b, 1A4c	010202, 010203, 030105, 0202, 0203, 020302			0,62	1	0,62	1	1,06	1	6,8	1	0,53	1	3,22	1			8,39	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
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
FISH & RAPE OIL	all	all	1,17	3	0,23	3	0,94	3	1,17	3	1,17	3	0,64	3	2,34	3	4,68	3	11,7	3
ORIMULSION	1A1a	010101	14,07	4	13,5	4	33,33	4	12,96	4	4,3	4	642	4	23,46	4	12,3	4	2,72	4

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, whith an english summary). Available on the Internet at :http://www.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR442.pdf
3. Assumed same emission factors as for gas oil (NERI assumption)
4. Assumed same emission factors as for residual oil (NERI assumption)

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 51 HM emission factors [mg/GJ] 2003 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	0,1	8,02	4,41	2,2	6,81	6	13	10,5
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 is not constant for municipal waste. Time series are shown in Table 52. All other factors are constant in 1990-2003.

Table 52 HM emission factors time-series for municipal waste [mg/GJ].

pollutant	snap_id	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
As	0101	7,82	7,21	6,74	6,74										
As	010102		7,21	6,74	6,74	6,74	6,74			6,74	6,74	6,74	6,74	6,74	6,74
As	0102	7,82	7,21	6,59	5,98	5,37	4,76	4,14	3,53						
As	0201	7,82	7,21	6,59	5,98	5,37	4,76	4,14	3,53	3,53	3,53	3,53	3,53	3,53	3,53
As	0301	7,82	7,21	6,59	5,98	5,37	4,76	4,14	3,53	3,53	3,53				
Cd	0101	31,3	28,2	25	21,8										
Cd	010102		28,2	25	21,8	18,7	15,5			9,21	9,21	4,73	4,73	4,73	4,73
Cd	010103					18,7	15,5	12,4	9,21	9,21	9,21	4,73	4,73	4,73	4,73
Cd	0102	31,3	28,2	25	21,8	18,7	15,5	12,4	9,21						
Cd	0201	31,3	28,2	25	21,8	18,7	15,5	12,4	9,21	9,21	9,21	9,21	9,21	9,21	9,21
Cd	0301	31,3	28,2	25	21,8	18,7	15,5	12,4	9,21	9,21	9,21				
Cr	0101	186	164	142	120										
Cr	010102		164	142	120	98,6	76,7			33	33	2,43	2,43	2,43	2,43
Cr	010103					98,6	76,7	54,8	33	33	33	2,43	2,43	2,43	2,43
Cr	0102	186	164	142	120	98,6	76,7	54,8	33						
Cr	0201	186	164	142	120	98,6	76,7	54,8	33	33	33	33	33	33	33
Cr	0301	186	164	142	120	98,6	76,7	54,8	33	33	33				
Cu	0101	123	110	97,3	84,2										
Cu	010102		110	97,3	84,2	71,1	58			31,8	31,8	10	10	10	10
Cu	010103					71,1	58	44,9	31,8	31,8	31,8	10	10	10	10
Cu	0102	123	110	97,3	84,2	71,1	58	44,9	31,8						
Cu	0201	123	110	97,3	84,2	71,1	58	44,9	31,8	31,8	31,8	31,8	31,8	31,8	31,8
Cu	0301	123	110	97,3	84,2	71,1	58	44,9	31,8	31,8	31,8				
Hg	0101	132	122	111	101										
Hg	010102		122	111	101	90,3	79,8			58,7	58,7	7,39	7,39	7,39	7,39
Hg	010103					7,39	79,8	69,2	58,7	58,7	58,7	7,39	7,39	7,39	7,39
Hg	0102	132	122	111	101	90,3	79,8	69,2	58,7						
Hg	0201	132	122	111	101	90,3	79,8	69,2	58,7	58,7	58,7	58,7	58,7	58,7	58,7
Hg	0301	132	122	111	101	90,3	79,8	69,2	58,7	58,7	58,7				
Ni	0101	192	172	153	133										
Ni	010102		172	153	133	114	94,4			55,4	55,4	4,71	4,71	4,71	4,71
Ni	010103					114	94,4	74,9	55,4	55,4	55,4	4,71	4,71	4,71	4,71
Ni	0102	192	172	153	133	114	94,4	74,9	55,4						
Ni	0201	192	172	153	133	114	94,4	74,9	55,4	55,4	55,4	55,4	55,4	55,4	55,4
Ni	0301	192	172	153	133	114	94,4	74,9	55,4	55,4	55,4				
Pb	0101	639	639	555	472										
Pb	010102		639	555	472	388	305			138	138	123	123	123	123
Pb	010103					388	305	221	138	138	138	123	123	123	123
Pb	0102	723	639	555	472	388	305	221	138						
Pb	0201	723	639	555	472	388	305	221	138	138	138	138	138	138	138
Pb	0301	723	639	555	472	388	305	221	138	138	138				
Zn	0101	805	741	678	614										
Zn	010102		741	678	614	550	487			360	360	360	360	360	360
Zn	010103					550	487	423	360	360	360	360	360	360	360
Zn	010104					550	487	423	360	360	360	360	360	360	360
Zn	0102	805	741	678	614	550	487	423	360						
Zn	010202					550	487								
Zn	010203					550	487	423	360	360	360	360	360	360	360
Zn	0201	805	741	678	614	550	487	423	360	360	360	360	360	360	360
Zn	020103					550	487	423	360	360	360	360	360	360	360
Zn	0301	805	741	678	614	550	487	423	360	360	360				

Table 53 PAH emission factors 2003.

Fuel	IPCC id	SNAP	Benzo(a)-pyrene		Benzo(b)-fluoranthene		Benzo(k)-fluoranthene		Indeno(1,2,3-c,d)-pyrene	
			[µg/GJ]	Refer-ence	[µg/GJ]	Refer-ence	[µg/GJ]	Refer-ence	[µg/GJ]	Refer-ence
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
BROWN COAL BRI.	1A4b	0202	59524	4 (9)	63492	4 (9)	1984	4 (9)	119048	4 (9)
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)
PETROLEUM COKE	all	all	3184	5	9554	5				
WOOD AND SIMIL.	1A1a	010102, 010103, 010104	3	8	2	8	2	8	2	8
WOOD AND SIMIL.	1A1a, 1A2f	010105, 010202, 010203, 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
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
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, 030105	1529	2	3452	2	1400	2	1029	2
STRAW	1A4b, 1A4c	0202, 0203, 020302	12956	2	12828	2	6912	2	4222	2
RESIDUAL OIL	1A1a, 1A1b	0101, 010101, 010102, 010103, 010104, 010105, 010202, 010203, 010306	109,6	4	475,41	4	93,21	4	177,28	4
RESIDUAL OIL	1A2f 1A4a 1A4b 1A4c	0301, 030102, 030103, 030104, 030105, 0201, 0202, 0203, 020302, 020304	80	4	42	4	66	4	160	4
GAS OIL	1A1a, 1A1b 1A1c	0101, 010101, 010102, 010103, 010104, 010105, 010202, 010203, 010205, 010306, 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
FISH & RAPE OIL	1A1a	010103, 010202, 010203	109,6	3	475,41	3	93,21	3	177,28	3
FISH & RAPE OIL	1A2f, 1A4c	030105, 020304	80	3	42	3	66	3	160	3
ORIMULSION	1A1a	010101	109,6	4 (7)	475,41	4 (7)	93,21	4 (7)	177,28	4 (7)
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4c	Gas turbines: 010104, 010504, 030104, 020104, 020303	1	8	1	8	2	8	3	8
NATURAL GAS	1A1a, 1A1c, 1A2f, 1A4a, 1A4b, 1A4c	Gas engines: 010105, 010205, 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
BIOGAS	all	all	1	8	1	8	0,4	8	1,1	8

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9. Same emission factor as for coal is assumed (NERI assumption)

The same PAH emission factors have been applied for 1990-2003.

Appendix 6 Implied emission factors for municipal waste incineration plants and power plants combustion coal

Table 54 Implied emission factors for municipal waste incineration plants 2003.

Pollutant	Implied Emission factor	Unit
SO_2	26	g/GJ
NO_x	112	g/GJ
TSP	2,8	g/GJ
PM_{10}	2,3	g/GJ
$PM_{2.5}$	1,9	g/GJ
As	8,4	mg/GJ
Cd	3,6	mg/GJ
Cr	4,5	mg/GJ
Cu	11	mg/GJ
Hg	12	mg/GJ
Ni	9,6	mg/GJ
Pb	42	mg/GJ
Zn	342	mg/GJ

Table 55 Implied emission factors for power plants combusting coal, 2003.

Pollutant	Implied Emission factor	Unit
SO_2	58	g/GJ
NO_x	152	g/GJ
TSP	2,9	g/GJ
PM_{10}	2,3	g/GJ
$PM_{2.5}$	1,9	g/GJ
As	0,56	mg/GJ
Cd	0,06	mg/GJ
Cr	1,1	mg/GJ
Cu	0,63	mg/GJ
Hg	1,0	mg/GJ
Ni	3,5	mg/GJ
Pb	1,2	mg/GJ
Se	4,6	mg/GJ
Zn	0,59	mg/GJ

Appendix 7 Large point sources

Table 56 Large point sources, fuel consumption in 2003 (1A1, 1A2 and 1A4).

lps_id	lps name	part_id	SNAP_id	fuel_id	fuel	fuel consumption [GJ]	IPCC source
001	Amagervaerket	01	010101	102	COAL	4372370	1A1a
001	Amagervaerket	01	010101	203	RESIDUAL OIL	187970	1A1a
001	Amagervaerket	02	010101	102	COAL	1847481	1A1a
001	Amagervaerket	02	010101	117	STRAW	36157	1A1a
001	Amagervaerket	02	010101	203	RESIDUAL OIL	803381	1A1a
001	Amagervaerket	03	010101	102	COAL	15278680	1A1a
001	Amagervaerket	03	010101	203	RESIDUAL OIL	101118	1A1a
002	Svanemoellevaerket	05	010101	203	RESIDUAL OIL	8511	1A1a
002	Svanemoellevaerket	05	010101	301	NATURAL GAS	1382528	1A1a
002	Svanemoellevaerket	07	010104	301	NATURAL GAS	4911978	1A1a
003	H.C.Oerstedsvaerket	03	010101	203	RESIDUAL OIL	475381	1A1a
003	H.C.Oerstedsvaerket	03	010101	301	NATURAL GAS	1888909	1A1a
003	H.C.Oerstedsvaerket	07	010101	203	RESIDUAL OIL	699400	1A1a
003	H.C.Oerstedsvaerket	07	010101	301	NATURAL GAS	2280826	1A1a
004	Kyndbyvaerket	21	010101	203	RESIDUAL OIL	708241	1A1a
004	Kyndbyvaerket	22	010101	203	RESIDUAL OIL	694267	1A1a
004	Kyndbyvaerket	26	010101	203	RESIDUAL OIL	157631	1A1a
004	Kyndbyvaerket	28	010101	203	RESIDUAL OIL	168012	1A1a
004	Kyndbyvaerket	41	010105	204	GAS OIL	2035	1A1a
004	Kyndbyvaerket	51	010104	204	GAS OIL	14539	1A1a
004	Kyndbyvaerket	52	010104	204	GAS OIL	10722	1A1a
005	Masnedoevaerket	12	010102	111	WOOD AND SIMIL.	129622	1A1a
005	Masnedoevaerket	12	010102	117	STRAW	466590	1A1a
005	Masnedoevaerket	31	010104	204	GAS OIL	18945	1A1a
007	Stigsnaesvaerket	01	010101	102	COAL	4973380	1A1a
007	Stigsnaesvaerket	01	010101	203	RESIDUAL OIL	233254	1A1a
007	Stigsnaesvaerket	02	010101	102	COAL	14494500	1A1a
007	Stigsnaesvaerket	02	010101	203	RESIDUAL OIL	137880	1A1a
008	Asnaesvaerket	01	010101	203	RESIDUAL OIL	53407	1A1a
008	Asnaesvaerket	02	010101	102	COAL	7395263	1A1a
008	Asnaesvaerket	02	010101	203	RESIDUAL OIL	84665	1A1a
008	Asnaesvaerket	04	010101	102	COAL	10578939	1A1a
008	Asnaesvaerket	04	010101	203	RESIDUAL OIL	74661	1A1a
008	Asnaesvaerket	05	010101	102	COAL	19696621	1A1a
008	Asnaesvaerket	05	010101	203	RESIDUAL OIL	1275842	1A1a
008	Asnaesvaerket	05	010101	225	ORIMULSION	1921399	1A1a
009	Statoil Raffinaderi	01	010306	203	RESIDUAL OIL	279129	1A1b
009	Statoil Raffinaderi	01	010306	308	REFINERY GAS	8030099	1A1b
010	Avedoerevaerket	01	010101	102	COAL	12743451	1A1a
010	Avedoerevaerket	01	010101	203	RESIDUAL OIL	133010	1A1a
010	Avedoerevaerket	01	010101	204	GAS OIL	593077	1A1a
010	Avedoerevaerket	02	010104	111	WOOD AND SIMIL.	1505813	1A1a
010	Avedoerevaerket	02	010104	117	STRAW	1706623	1A1a
010	Avedoerevaerket	02	010104	203	RESIDUAL OIL	9316307	1A1a
010	Avedoerevaerket	02	010104	301	NATURAL GAS	7609397	1A1a
011	Fynsvaerket	03	010101	102	COAL	1778840	1A1a
011	Fynsvaerket	03	010101	114	MUNICIP. WASTES	143440	1A1a
011	Fynsvaerket	03	010101	203	RESIDUAL OIL	105670	1A1a
011	Fynsvaerket	03	010101	301	NATURAL GAS	3481430	1A1a
011	Fynsvaerket	07	010101	102	COAL	15646110	1A1a
011	Fynsvaerket	07	010101	203	RESIDUAL OIL	231590	1A1a
011	Fynsvaerket	08	010102	114	MUNICIP. WASTES	2642140	1A1a
011	Fynsvaerket	08	010102	204	GAS OIL	17291	1A1a
012	Studstrupvaerket	03	010101	102	COAL	14661460	1A1a
012	Studstrupvaerket	03	010101	203	RESIDUAL OIL	238470	1A1a
012	Studstrupvaerket	04	010101	102	COAL	17260700	1A1a
012	Studstrupvaerket	04	010101	117	STRAW	1456510	1A1a
012	Studstrupvaerket	04	010101	203	RESIDUAL OIL	154990	1A1a
014	Vendsysselvaerket	02	010101	102	COAL	9036830	1A1a
014	Vendsysselvaerket	02	010101	203	RESIDUAL OIL	122030	1A1a
014	Vendsysselvaerket	03	010101	102	COAL	22488770	1A1a
014	Vendsysselvaerket	03	010101	203	RESIDUAL OIL	238700	1A1a
014	Vendsysselvaerket	03	010101	204	GAS OIL	5070	1A1a
016	Kemira Danmark	03	030104	301	NATURAL GAS	899788	1A2f
017	Shell Raffinaderi	01	010306	203	RESIDUAL OIL	627953	1A1b
017	Shell Raffinaderi	01	010306	308	REFINERY GAS	4720316	1A1b
017	Shell Raffinaderi	05	010304	308	REFINERY GAS	2670246	1A1b
018	Skaerbaekvaerket	03	010101	204	GAS OIL	340150	1A1a
018	Skaerbaekvaerket	03	010101	301	NATURAL GAS	11131600	1A1a
019	Enstedvaerket	03	010101	102	COAL	31756460	1A1a
019	Enstedvaerket	03	010101	203	RESIDUAL OIL	119150	1A1a
019	Enstedvaerket	04	010101	111	WOOD AND SIMIL.	304980	1A1a
019	Enstedvaerket	04	010101	117	STRAW	1699250	1A1a

019	Enstedvaerket	04	010101	204	GAS OIL	18700	1A1a
020	Esbjergvaerket	03	010101	102	COAL	21387080	1A1a
020	Esbjergvaerket	03	010101	203	RESIDUAL OIL	112140	1A1a
022	Oestkraft	05	010102	203	RESIDUAL OIL	17222	1A1a
022	Oestkraft	06	010102	102	COAL	725648	1A1a
022	Oestkraft	06	010102	111	WOOD AND SIMIL.	45403	1A1a
022	Oestkraft	06	010102	203	RESIDUAL OIL	28847	1A1a
023	Danisco Ingredients	01	030102	102	COAL	527257	1A2f
023	Danisco Ingredients	01	030102	301	NATURAL GAS	6433	1A2f
024	Dansk Naturgas Behandlingsanlaeg	01	010502	301	NATURAL GAS	322830,99	1A1c
025	Horsens Kraftvarmevaerk	01	010102	111	WOOD AND SIMIL.	77910	1A1a
025	Horsens Kraftvarmevaerk	01	010102	114	MUNICIP. WASTES	897730	1A1a
025	Horsens Kraftvarmevaerk	02	010104	301	NATURAL GAS	880180	1A1a
026	Herningvaerket	01	010102	111	WOOD AND SIMIL.	2239420	1A1a
026	Herningvaerket	01	010102	203	RESIDUAL OIL	36430	1A1a
026	Herningvaerket	01	010102	301	NATURAL GAS	1441710	1A1a
027	Vestforbraendingen	01	010102	114	MUNICIP. WASTES	2171692	1A1a
027	Vestforbraendingen	01	010102	204	GAS OIL	8680	1A1a
027	Vestforbraendingen	02	010102	114	MUNICIP. WASTES	3062799	1A1a
028	Amagerforbraendingen	01	010102	114	MUNICIP. WASTES	4312579	1A1a
029	Randersvaerket	01	010102	102	COAL	2829054	1A1a
029	Randersvaerket	01	010102	111	WOOD AND SIMIL.	339631	1A1a
029	Randersvaerket	01	010102	114	MUNICIP. WASTES	25700	1A1a
029	Randersvaerket	01	010102	309	BIOGAS	21787	1A1a
029	Randersvaerket	02	010102	204	GAS OIL	51483	1A1a
030	Grenaavaerket	01	010102	102	COAL	1023565	1A1a
030	Grenaavaerket	01	010102	111	WOOD AND SIMIL.	161708	1A1a
030	Grenaavaerket	01	010102	114	MUNICIP. WASTES	40500	1A1a
030	Grenaavaerket	01	010102	117	STRAW	818223	1A1a
030	Grenaavaerket	01	010102	203	RESIDUAL OIL	69771	1A1a
030	Grenaavaerket	01	010102	204	GAS OIL	8739	1A1a
031	Hilleroedvaerket	01	010104	301	NATURAL GAS	3057446	1A1a
032	Helsingoervaerket	01	010104	301	NATURAL GAS	1812439	1A1a
032	Helsingoervaerket	02	010105	301	NATURAL GAS	23496	1A1a
033	Staalvalsevaerket	01	030102	301	NATURAL GAS	1246687	1A2f
034	Stora Dalum	01	030102	301	NATURAL GAS	1020508	1A2f
035	Assens Sukkerfabrik	01	030102	102	COAL	400360	1A2f
035	Assens Sukkerfabrik	01	030102	203	RESIDUAL OIL	354876	1A2f
035	Assens Sukkerfabrik	01	030102	309	BIOGAS	24852	1A2f
036	Kolding Kraftvarmevaerk	01	010103	114	MUNICIP. WASTES	808370	1A1a
036	Kolding Kraftvarmevaerk	02	010103	114	MUNICIP. WASTES	282337	1A1a
037	Maabjergvaerket	02	010102	111	WOOD AND SIMIL.	409920	1A1a
037	Maabjergvaerket	02	010102	114	MUNICIP. WASTES	1759520	1A1a
037	Maabjergvaerket	02	010102	117	STRAW	427220	1A1a
037	Maabjergvaerket	02	010102	301	NATURAL GAS	205870	1A1a
038	Soenderborg Kraftvarmevaerk	01	010102	114	MUNICIP. WASTES	771028	1A1a
038	Soenderborg Kraftvarmevaerk	02	010104	301	NATURAL GAS	1207138	1A1a
039	Kara Affaldsforbraendingsanlaeg	01	010102	114	MUNICIP. WASTES	1713119	1A1a
039	Kara Affaldsforbraendingsanlaeg	01	010102	301	NATURAL GAS	9375	1A1a
040	Viborg Kraftvarmevaerk	01	010104	301	NATURAL GAS	2147962	1A1a
042	Nordforbraendingen	01	010102	114	MUNICIP. WASTES	1020319	1A1a
045	Aalborg Portland	01	030311	102	COAL	3368675	1A2f
045	Aalborg Portland	01	030311	110	PETROLEUM COKE	7714392	1A2f
045	Aalborg Portland	01	030311	114	MUNICIP. WASTES	1406393	1A2f
045	Aalborg Portland	01	030311	118	SEWAGE SLUDGE	55369	1A2f
045	Aalborg Portland	01	030311	203	RESIDUAL OIL	587464	1A2f
046	Aarhus Nord	01	010102	111	WOOD AND SIMIL.	18	1A1a
046	Aarhus Nord	01	010102	114	MUNICIP. WASTES	1748000	1A1a
047	Reno Nord	01	010103	114	MUNICIP. WASTES	1443472	1A1a
048	Silkeborg Kraftvarmevaerk	01	010104	301	NATURAL GAS	3285422	1A1a
049	Rensningsanlægget Lynetten	01	020103	114	MUNICIP. WASTES	74825	1A4a
049	Rensningsanlægget Lynetten	01	020103	204	GAS OIL	29646	1A4a
049	Rensningsanlægget Lynetten	01	020103	309	BIOGAS	85295	1A4a
050	I/S Fasan	01	010203	114	MUNICIP. WASTES	925586	1A1a
051	AVV Forbrændingsanlæg	01	010103	114	MUNICIP. WASTES	632342	1A1a
052	I/S REFA Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	1072953	1A1a
053	Svendborg Kraftvarmeværk	01	010102	114	MUNICIP. WASTES	573143	1A1a
053	Svendborg Kraftvarmeværk	01	010102	301	NATURAL GAS	3270	1A1a
054	Kommunekemi	01	010102	114	MUNICIP. WASTES	685813	1A1a
054	Kommunekemi	01	010102	203	RESIDUAL OIL	50794	1A1a
054	Kommunekemi	01	010102	204	GAS OIL	14134	1A1a
054	Kommunekemi	02	010102	114	MUNICIP. WASTES	619308	1A1a
054	Kommunekemi	02	010102	203	RESIDUAL OIL	30525	1A1a
054	Kommunekemi	02	010102	204	GAS OIL	8668	1A1a
054	Kommunekemi	03	010102	114	MUNICIP. WASTES	480732	1A1a
054	Kommunekemi	03	010102	203	RESIDUAL OIL	20431	1A1a
054	Kommunekemi	03	010102	204	GAS OIL	5722	1A1a
054	Kommunekemi	04	010104	301	NATURAL GAS	15	1A1a
055	I/S Fælles Forbrænding	01	010203	114	MUNICIP. WASTES	263588	1A1a
056	Vestfyns Forbrænding	01	010203	114	MUNICIP. WASTES	230108	1A1a
058	I/S Reno Syd	01	010103	114	MUNICIP. WASTES	624003	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	111	WOOD AND SIMIL.	3878	1A1a
059	I/S Kraftvarmeværk Thisted	01	010103	114	MUNICIP. WASTES	538325	1A1a

059	I/S Kraftvarmeværk Thisted	01	010103	117	STRAW	4916	1A1a
060	Knudmoseværket	01	010103	114	MUNICIP. WASTES	391451	1A1a
060	Knudmoseværket	01	010103	301	NATURAL GAS	39698	1A1a
061	Kavo I/S Energien	01	010103	114	MUNICIP. WASTES	649194	1A1a
062	VEGA	01	010203	114	MUNICIP. WASTES	594392	1A1a
065	Haderslev Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	665025	1A1a
065	Haderslev Kraftvarmeværk	01	010103	301	NATURAL GAS	166	1A1a
066	Frederiskhavn Affaldskraftvarmeværk	01	010103	114	MUNICIP. WASTES	374121	1A1a
066	Frederiskhavn Affaldskraftvarmeværk	01	010103	204	GAS OIL	1005	1A1a
067	Vejen Kraftvarmeværk	01	010103	114	MUNICIP. WASTES	366610	1A1a
068	Bofa I/S	01	010203	114	MUNICIP. WASTES	193475	1A1a
069	DTU	01	010104	301	NATURAL GAS	765102	1A1a
070	Næstved Kraftvarmeværk	01	010104	301	NATURAL GAS	347670	1A1a
071	Maricogen	01	030104	301	NATURAL GAS	2235321	1A2f
072	Hjørring KVV	01	010104	301	NATURAL GAS	1375744	1A1a
075	Rockwool A/S Hedehusene	01	030318	301	NATURAL GAS	90000	1A2f
076	Rockwool A/S Vamdrup	01	030318	107	COKE OVEN COKE	375840	1A2f
076	Rockwool A/S Vamdrup	01	030318	301	NATURAL GAS	250560	1A2f
077	Rockwool A/S Doense	01	030318	107	COKE OVEN COKE	317520	1A2f
077	Rockwool A/S Doense	01	030318	301	NATURAL GAS	211680	1A2f
078	Rexam Glass Holmegaard A/S	01	030315	204	GAS OIL	933	1A2f
078	Rexam Glass Holmegaard A/S	01	030315	301	NATURAL GAS	945777	1A2f
081	Haldor Topsøe	02	0301	301	NATURAL GAS	457200	1A2f
081	Haldor Topsøe	02	0301	303	LPG	300	1A2f
082	Danisco Sugar Nakskov	02	030102	102	COAL	642254	1A2f
082	Danisco Sugar Nakskov	02	030102	203	RESIDUAL OIL	562311	1A2f
082	Danisco Sugar Nakskov	02	030102	204	GAS OIL	2941	1A2f
082	Danisco Sugar Nakskov	02	030102	309	BIOGAS	12150	1A2f
083	Danisco Sugar Nykøbing	02	030102	203	RESIDUAL OIL	727434	1A2f
083	Danisco Sugar Nykøbing	02	030102	309	BIOGAS	58544	1A2f

Table 57 Large point sources, plant specific emissions (IPCC 1A1, 1A2 and 1A4)[1].

LPS_id	LPS name	LPS part	Sector (IPCC)	Sector (SNAP)	SO_2	NO_x	NMVOC	CO	TSP	PM_{10} 2)	$PM_{2.5}$ 2)	As	Cd	Cr	Cu	Hg	Ni	Pb	Se	Zn
001	Amagervaerket	01	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
001	Amagervaerket	02	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
001	Amagervaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
002	Svanemoellevaerket	05	1A1a	010101	x	x														
002	Svanemoellevaerket	07	1A1a	010104		x														
003	H.C.Oerstedsvaerket	03	1A1a	010101	x	x						x	x	x	x	x	x	x	x	x
003	H.C.Oerstedsvaerket	07	1A1a	010101	x	x						x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	21	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	22	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	26	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	28	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	41	1A1a	010105					x	x	x	x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	51	1A1a	010104	x	x			x	x	x	x	x	x	x	x	x	x	x	x
004	Kyndbyvaerket	52	1A1a	010104	x	x			x	x	x	x	x	x	x	x	x	x	x	x
005	Masnedoevaerket	12	1A1a	010102	x															
005	Masnedoevaerket	31	1A1a	010104	x	x														
007	Stigsnaesvaerket	01	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
007	Stigsnaesvaerket	02	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
008	Asnaesvaerket	02	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
008	Asnaesvaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
008	Asnaesvaerket	04	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
008	Asnaesvaerket	05	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
009	Statoil Raffinaderi	01	1A1b	010306	x															
010	Avedoerevaerket	01	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
010	Avedoerevaerket	02	1A1a	010104	x	x			x	x	x	x	x	x	x	x	x	x	x	x
011	Fynsvaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
011	Fynsvaerket	07	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
011	Fynsvaerket	08	1A1a	010102	x	x		x	x	x	x	x	x	x	x	x	x	x		
012	Studstrupvaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
012	Studstrupvaerket	04	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
014	Vendsysselvaerket	02	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
014	Vendsysselvaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
017	Shell Raffinaderi	01	1A1b	010306	x	x														
017	Shell Raffinaderi	05	1A1b	010304	x	x														
018	Skaerbaekvaerket	01	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	
018	Skaerbaekvaerket	03	1A1a	010101	x	x			x	x	x									
019	Enstedvaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
019	Enstedvaerket	04	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
020	Esbjergvaerket	03	1A1a	010101	x	x			x	x	x	x	x	x	x	x	x	x	x	x
022	Oestkraft	05	1A1a	010102	x	x														
022	Oestkraft	06	1A1a	010102	x	x														
023	Danisco Ingredients	01	1A2f	030102	x															
024	Dansk Naturgas Behandlingsanlaeg	01	1A1c	010502		x														
025	Horsens Kraftvarmevaerk	01	1A1a	010102	x	x		x	x	x	x	x	x	x	x	x	x	x		
025	Horsens Kraftvarmevaerk	02	1A1a	010104		x														
026	Herningvaerket	01	1A1a	010102	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x
027	Vestforbraendingen	01	1A1a	010102	x	x			x	x	x					x				
027	Vestforbraendingen	02	1A1a	010102	x	x			x	x	x					x				
028	Amagerforbraendingen	01	1A1a	010102	x	x	x	x	x	x	x		x			x		x		
029	Randersvaerket	01	1A1a	010102	x	x			x	x	x									
030	Grenaavaerket	01	1A1a	010102	x	x		x	x	x	x	x	x	x	x	x	x	x		
031	Hilleroedvaerket	01	1A1a	010104		x														
032	Helsingoervaerket	01	1A1a	010104		x														
032	Helsingoervaerket	02	1A1a	010105		x														
033	Staalvalsevaerket	01	1A2f	030102		x			x	x	x									
034	Stora Dalum	01	1A2f	030102		x														
035	Assens Sukkerfabrik	01	1A2f	030102	x				x	x	x									
036	Kolding Kraftvarmevaerk	01	1A1a	010103	x		x	x	x	x	x	x	x	x	x	x	x	x		
036	Kolding Kraftvarmevaerk	02	1A1a	010103	x		x	x	x	x	x	x	x	x	x	x	x	x		
037	Maabjergvaerket	02	1A1a	010102	x	x		x	x	x	x	x	x	x	x	x	x	x		

038	Soenderborg Kraft-varmevaerk	01	1A1a	010102	x	x		x	x	x	x	x	x	x	x	x	x	x			x	
038	Soenderborg Kraft-varmevaerk	02	1A1a	010104		x																
039	Kara Affaldsforbraend-ingsanlaeg	01	1A1a	010102	x			x	x	x	x										x	
040	Viborg Kraftvarme-vaerk	01	1A1a	010104		x																
042	Nordforbraendingen	01	1A1a	010102	x			x	x	x	x										x	
046	Aarhus Nord	01	1A1a	010102	x				x	x	x										x	
047	Reno Nord	01	1A1a	010103	x			x	x	x	x	x	x	x	x	x	x	x			x	
048	Silkeborg Kraftvarme-vaerk	01	1A1a	010104		x																
049	Rensningsanlægget Lynetten	01	1A4a	020103	x				x	x	x	x	x	x	x	x	x	x			x	
050	I/S Fasan	01	1A1a	010203	x	x		x	x	x	x	x									x	
051	AVV Forbrænding-sanlæg	01	1A1a	010103	x			x	x	x	x										x	
052	I/S REFA Kraftvar-meværk	01	1A1a	010103					x	x	x										x	
053	Svendborg Kraftvar-meværk	01	1A1a	010102	x	x	x	x	x	x	x										x	
054	Kommunekemi	01	1A1a	010102	x			x	x	x	x							x				
054	Kommunekemi	02	1A1a	010102	x			x	x	x	x							x				
054	Kommunekemi	03	1A1a	010102	x			x	x	x	x							x				
056	Vestfyns Forbrænding	01	1A1a	010203	x	x		x	x	x	x											
058	I/S Reno Syd	01	1A1a	010103	x			x	x	x	x										x	
059	I/S Kraftvarmeværk Thisted	01	1A1a	010103	x			x	x	x	x		x				x				x	
060	Knudmoseværket	01	1A1a	010103	x			x	x	x	x						x				x	
061	Kavo I/S Energien	01	1A1a	010103	x		x	x	x	x	x	x	x	x	x	x	x	x	x		x	x
062	VEGA (Vestforbraend-ing Taastrup)	01	1A1a	010203	x	x		x	x	x	x										x	
065	Haderslev Kraftvar-meværk	01	1A1a	010103	x	x		x	x	x	x						x	x	x			
066	Frederiskhavn Af-faldskraftvarmeværk	01	1A1a	010103	x	x		x	x	x	x						x		x			
067	Vejen Kraftvarmeværk	01	1A1a	010103	x	x		x	x	x	x	x	x	x	x	x	x	x	x			
068	Bofa I/S	01	1A1a	010203	x			x	x	x	x								x			
069	DTU	01	1A1a	010104		x																
070	Næstved Kraftvar-meværk	01	1A1a	010104		x		x														
071	Maricogen	01	1A2f	030104		x																
072	Hjørring KVV	01	1A1a	010104		x																
075	Rockwool A/S Hede-husene	01	1A2f	030318	x		x	x	x	x	x											
076	Rockwool A/S Vam-drup	01	1A2f	030318	x		x	x	x	x	x											
077	Rockwool A/S Doense	01	1A2f	030318	x		x	x	x	x	x											
078	Rexam Glass Hol-megaard A/S	01	1A2f	030315		x		x	x	x	x										x	x	x
080	Saint-Gobain Isover A/S	01	1A2f	030316					x	x	x											
081	Haldor Topsøe	02	1A2f	0301					x	x	x											
082	Danisco Sugar Nak-skov	02	1A2f	030102					x	x	x											
083	Danisco Sugar Nykøbing	02	1A2f	030102					x	x	x											
045	Aalborg Portland	01/03	1A2f	030311	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Total				**18270**	**56439**	**20**	**9690**	**1605**	**1291**	**980**	**315**	**67**	**298**	**266**	**604**	**2059**	**1404**	**1203**	**227**		

1) Emission of the pollutants marked with "x" is plant specific. Emission of other pollutants is estimated based on emission factors. The total shown *in this table* only includes plant specific data.
2) Based on particle size distribution

Appendix 8 Uncertainty estimates

Table 58 Uncertainty estimation, GHG.

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Gg CO_2 eq	Gg CO_2 eq	%	%	%	%	%	%	%	%	%
Stationary Combustion, Coal	CO_2	24077	22609	1	5	5,099	2,713	-0,108	0,591	-0,539	0,836	0,995
Stationary Combustion, BKB	CO_2	11	0	3	5	5,831	0,000	0,000	0,000	-0,002	0,000	0,002
Stationary Combustion, Coke	CO_2	138	108	3	5	5,831	0,015	-0,001	0,003	-0,006	0,012	0,013
Stationary Combustion, Petroleum coke	CO_2	410	779	3	5	5,831	0,107	0,008	0,020	0,042	0,086	0,096
Stationary Combustion, Plastic waste	CO_2	349	649	5	5	7,071	0,108	0,007	0,017	0,034	0,120	0,125
Stationary Combustion, Residual oil	CO_2	2505	2120	2	2	2,828	0,141	-0,017	0,055	-0,035	0,157	0,161
Stationary Combustion, Gas oil	CO_2	4564	2918	4	5	6,403	0,440	-0,056	0,076	-0,281	0,432	0,515
Stationary Combustion, Kerosene	CO_2	366	24	4	5	6,403	0,004	-0,010	0,001	-0,050	0,004	0,050
Stationary Combustion, Orimulsion	CO_2	0	154	1	2	2,236	0,008	0,004	0,004	0,008	0,006	0,010
Stationary Combustion, Natural gas	CO_2	4330	11152	3	1	3,162	0,830	0,166	0,292	0,166	1,237	1,248
Stationary Combustion, LPG	CO_2	164	74	4	5	6,403	0,011	-0,003	0,002	-0,014	0,011	0,018
Stationary Combustion, Refinery gas	CO_2	806	942	3	5	5,831	0,129	0,001	0,025	0,006	0,105	0,105
Stationary combustion plants, gas engines	CH_4	6	391	2,2	40	40,060	0,368	0,010	0,010	0,401	0,032	0,402
Stationary combustion plants, other	CH_4	115	130	2,2	100	100,024	0,307	0,000	0,003	0,007	0,011	0,013
Stationary combustion plants	N_2O	398	440	2,2	1000	1000,002	10,360	0,000	0,012	-0,045	0,036	0,058
Total		38239	42490				115,855					3,043

Total uncertainties	Overall uncertainty in the year (%):	10,764	Trend uncertainty (%):	1,744

Table 59 Uncertainty estimation, CO_2.

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		Gg CO_2	Gg CO_2	%	%	%	%	%	%	%	%	%
Stationary Combustion, Coal	CO_2	24077	22609	1	5	5,099	2,713	-0,108	0,591	-0,539	0,836	0,995
Stationary Combustion, BKB	CO_2	11	0	3	5	5,831	0,000	0,000	0,000	-0,002	0,000	0,002
Stationary Combustion, Coke	CO_2	138	108	3	5	5,831	0,015	-0,001	0,003	-0,006	0,012	0,013
Stationary Combustion, Petroleum coke	CO_2	410	779	3	5	5,831	0,107	0,008	0,020	0,042	0,086	0,096
Stationary Combustion, Plastic waste	CO_2	349	649	5	5	7,071	0,108	0,007	0,017	0,034	0,120	0,125
Stationary Combustion, Residual oil	CO_2	2505	2120	2	2	2,828	0,141	-0,017	0,055	-0,035	0,157	0,161
Stationary Combustion, Gas oil	CO_2	4564	2918	4	5	6,403	0,440	-0,056	0,076	-0,281	0,432	0,515
Stationary Combustion, Kerosene	CO_2	366	24	4	5	6,403	0,004	-0,010	0,001	-0,050	0,004	0,050
Stationary Combustion, Orimulsion	CO_2	0	154	1	2	2,236	0,008	0,004	0,004	0,008	0,006	0,010
Stationary Combustion, Natural gas	CO_2	4330	11152	3	1	3,162	0,830	0,166	0,292	0,166	1,237	1,248
Stationary Combustion, LPG	CO_2	164	74	4	5	6,403	0,011	-0,003	0,002	-0,014	0,011	0,018
Stationary Combustion, Refinery gas	CO_2	806	942	3	5	5,831	0,129	0,001	0,025	0,006	0,105	0,105
Total	CO_2	37720	41529				8,693					2,920

Total uncertainties	Overall uncertainty in the year (%):	2,948	Trend uncertainty (%):	1,709

Table 60 Uncertainty estimation, CH_4.

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty 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 CH_4	Mg CH_4	%	%	%	%	%	%	%	%	%
Stationary combustion plants, gas engines	CH_4	305	18601	2,2	40	40,060	30,036	2,993	3,221	119,728	10,023	120,147
Stationary combustion plants, other	CH_4	5470	6208	2,2	100	100,024	25,029	-2,967	1,075	-296,668	3,345	296,687
Total	CH_4	5774	24809				1528,6					102459
Total uncertainties				**Overall uncertainty in the year (%):**			**39,098**			**Trend uncertainty (%):**		**320,091**

Table 61 Uncertainty estimation, N_2O.

IPCC Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty 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							
		Gg N_2O	Gg N_2O	%	%	%	%	%	%	%	%	%
Stationary combustion plants	N_2O	1,283	1,420	2,200	1000,000	1000,002	1000,002	0,000	1,107	0,000	3,444	3,444
Total	N_2O	1,283	1,420				1000005					11,858
Total uncertainties				**Overall uncertainty in the year (%):**			**1000,002**			**Trend uncertainty (%):**		**3,444**

Table 62 Uncertainty estimation, SO_2.

SNAP	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in	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 uncer-	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	129579	17461	2	10	10,198	6,614	-0,030	0,111	-0,301	0,315	0,435
02	SO_2	11500	3612	2	20	20,100	2,697	0,010	0,023	0,209	0,065	0,219
03	SO_2	15921	5851	2	10	10,198	2,216	0,020	0,037	0,199	0,105	0,225
Total	SO_2	157000	26924				55,924					0,288

Total uncertainties	Overall uncertainty in the year (%):	**7,478**	Trend uncertainty (%):	**0,536**

Table 63 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 uncer-	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	94953	64508	2	20	20,100	15,150	-0,049	0,5575	-0,980	1,577	1,856
02	NO_x	8056	7654	2	50	50,040	4,475	0,015	0,0661	0,732	0,187	0,756
03	NO_x	12709	13419	2	20	20,100	3,152	0,035	0,1160	0,694	0,328	0,768
Total	NO_x	115718	85581				259,498					4,607

Total uncertainties	Overall uncertainty in the year (%):	**16,109**	Trend uncertainty (%):	**2,146**

Table 64 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	1073	4263	2	50	50,040	11,545	0,213	0,3361	10,631	0,951	10,674
02	NMVOC	10996	13494	2	50	50,040	36,544	-0,197	1,0638	-9,866	3,009	10,314
03	NMVOC	615	721	2	50	50,040	1,951	-0,014	0,0568	-0,689	0,161	0,707
Total	NMVOC	12685	18478				1472,543					220,819

Total uncertainties	Overall uncertainty in the year (%):	**38,374**	Trend uncertainty (%):	**14,860**

Table 65 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 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 CO	Mg CO	%	%	%	%	%	%	%	%	%
01	CO	8256	12629	2	20	20,100	1,382	0,022	0,073	0,445	0,207	0,491
02	CO	159295	158778	2	50	50,040	43,248	-0,062	0,920	-3,083	2,601	4,034
03	CO	5082	12308	2	20	20,100	1,347	0,040	0,071	0,799	0,202	0,824
Total	CO	172633	183715				1874,073					17,193

Total uncertainties	Overall uncertainty in the year (%):	**43,291**	Trend uncertainty (%):	**4,146**

Table 66 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 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 TSP	kg TSP	%	%	%	%	%	%	%	%	%
01	TSP	1158	1432	2	50	50,040	4,850	0,020	0,095	0,997	0,267	1,032
02	TSP	12843	12323	2	500	500,004	416,918	-0,014	0,814	-6,806	2,301	7,184
03	TSP	1146	1023	2	50	50,040	3,465	-0,006	0,068	-0,311	0,191	0,365
Total	TSP	15147	14779				173856,474					52,811

Total uncertainties	Overall uncertainty in the year (%):	**416,961**	Trend uncertainty (%):	**7,267**

Table 67 Uncertainty estimation, PM_{10}.

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 PM_{10}	kg PM_{10}	%	%	%	%	%	%	%	%	%
01	PM_{10}	941	1141	2	50	50,040	4,227	0,017	0,082	0,826	0,231	0,858
02	PM_{10}	12185	11683	2	500	500,004	432,470	-0,007	0,836	-3,529	2,366	4,249
03	PM_{10}	843	683	2	50	50,040	2,531	-0,009	0,049	-0,471	0,138	0,491
Total	PM_{10}	13969	13507				187054,310					19,030

Total uncertainties	Overall uncertainty in the year (%):	**432,498**	Trend uncertainty (%):	**4,362**

Table 68 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 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 $PM_{2.5}$	kg $PM_{2.5}$	%	%	%	%	%	%	%	%	%
01	$PM_{2.5}$	804	953	2	50	50,040	3,843	0,014	0,074	0,682	0,210	0,713
02	$PM_{2.5}$	11520	11048	2	500	500,004	445,192	-0,008	0,861	-3,797	2,437	4,511
03	$PM_{2.5}$	500	407	2	50	50,040	1,643	-0,006	0,032	-0,299	0,090	0,312
Total	$PM_{2.5}$	12825	12409				198213,438					20,958

Total uncertainties	Overall uncertainty in the year (%):	**445,212**	Trend uncertainty (%):	**4,578**

Table 69 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 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 As	kg As	%	%	%	%	%	%	%	%	%
01	As	965	458	2	100	100,020	63,502	-0,017	0,318	-1,715	0,899	1,936
02	As	127	71	2	1000	1000,002	97,710	0,005	0,049	4,735	0,138	4,737
03	As	350	193	2	100	100,020	26,745	0,012	0,134	1,249	0,379	1,305
Total	As	1442	722				14295,159					27,894

Total uncertainties	Overall uncertainty in the year (%):	**119,562**	Trend uncertainty (%):	**5,281**

Table 70 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 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 Cd	kg Cd	%	%	%	%	%	%	%	%	%
01	Cd	592	215	2	100	100,020	40,611	-0,079	0,204	-7,854	0,578	7,876
02	Cd	145	146	2	1000	1000,002	275,729	0,069	0,139	69,465	0,393	69,466
03	Cd	315	169	2	100	100,020	31,831	0,009	0,160	0,940	0,453	1,043
Total	Cd	1052	529				78688,984					4888,685

Total uncertainties	Overall uncertainty in the year (%):	**280,516**	Trend uncertainty (%):	**69,919**

Table 71 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	4674	503	2	100	100,020	51,166	-0,041	0,082	-4,067	0,233	4,074
02	Cr	326	113	2	1000	1000,002	114,483	0,010	0,018	9,845	0,052	9,845
03	Cr	1104	368	2	100	100,020	37,404	0,031	0,060	3,108	0,171	3,113
Total	Cr	6103	984				17123,419					123,206

Total uncertainties	Overall uncertainty in the year (%):	130,856	Trend uncertainty (%):	11,100

Table 72 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	2915	615	2	100	100,020	60,819	-0,055	0,170	-5,451	0,480	5,472
02	Cu	302	219	2	1000	1000,002	216,951	0,037	0,061	37,310	0,171	37,311
03	Cu	405	177	2	100	100,020	17,501	0,018	0,049	1,758	0,138	1,764
Total	Cu	3622	1012				51072,917					1425,145

Total uncertainties	Overall uncertainty in the year (%):	225,993	Trend uncertainty (%):	37,751

Table 73 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	2509	716	2	100	100,020	58,420	-0,091	0,233	-9,142	0,658	9,165
02	Hg	330	273	2	1000	1000,002	222,729	0,046	0,089	45,974	0,251	45,974
03	Hg	238	237	2	100	100,020	19,322	0,046	0,077	4,610	0,218	4,615
Total	Hg	3076	1225				53394,404					2218,951

Total uncertainties	Overall uncertainty in the year (%):	231,072	Trend uncertainty (%):	47,106

Table 74 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	8384	3326	2	100	100,020	37,668	-0,006	0,156	-0,642	0,440	0,778
02	Ni	1852	821	2	1000	1000,002	93,007	0,003	0,038	2,633	0,109	2,635
03	Ni	11140	4684	2	100	100,020	53,050	0,004	0,219	0,379	0,620	0,726
Total	Ni	21376	8831				12883,397					8,077

Total uncertainties	Overall uncertainty in the year (%):	**113,505**	Trend uncertainty (%):	**2,842**

Table 75 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	11994	1906	2	100	100,020	56,291	-0,048	0,124	-4,770	0,351	4,782
02	Pb	946	327	2	1000	1000,002	96,518	0,008	0,021	7,703	0,060	7,704
03	Pb	2422	1154	2	100	100,020	34,075	0,040	0,075	4,030	0,212	4,035
Total	Pb	15361	3387				13645,559					98,501

Total uncertainties	Overall uncertainty in the year (%):	**116,814**	Trend uncertainty (%):	**9,925**

Table 76 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	2961	1028	2	100	100,020	51,607	-0,076	0,237	-7,620	0,670	7,650
02	Se	308	173	2	1000	1000,002	86,943	0,007	0,040	7,255	0,113	7,256
03	Se	1066	791	2	100	100,020	39,717	0,069	0,182	6,929	0,516	6,948
Total	Se	4335	1992				11799,786					159,4417894

Total uncertainties	Overall uncertainty in the year (%):	**108,627**	Trend uncertainty (%):	**12,627**

Table 77 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 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 Zn	kg Zn	%	%	%	%	%	%	%	%	%
01	Zn	14801	13338	2	100	100,020	74,479	-0,019	0,690	-1,890	1,950	2,716
02	Zn	2811	3032	2	1000	1000,002	169,261	0,022	0,157	22,120	0,443	22,125
03	Zn	1730	1542	2	100	100,020	8,612	-0,003	0,080	-0,311	0,226	0,384
Total	Zn	19342	17912				34270,633					497,030

Total uncertainties	Overall uncertainty in the year (%):	**185,123**	Trend uncertainty (%):	**22,294**

Table 78 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 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		31	33	2	100	100,020	0,847	-0,006	0,013	-0,637	0,037	0,638
02		2391	3742	2	1000	1000,002	967,679	0,000	1,515	0,073	4,284	4,284
03		49	92	2	100	100,020	2,386	0,006	0,037	0,630	0,106	0,639
Total		2471	3867				936408,372					19,170

Total uncertainties	Overall uncertainty in the year (%):	**967,682**	Trend uncertainty (%):	**4,378**

Table 79 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 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		11	15	2	100	100,020	1,181	-0,003	0,019	-0,270	0,054	0,275
02		749	1224	2	1000	1000,002	975,626	0,029	1,565	28,839	4,426	29,176
03		23	16	2	100	100,020	1,257	-0,026	0,020	-2,641	0,057	2,641
Total		782	1254				951849,639					858,313

Total uncertainties	Overall uncertainty in the year (%):	**975,628**	Trend uncertainty (%):	**29,297**

Table 80 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 uncer-	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg	kg	%	%	%	%	%	%	%	%	%
01		8	8	2	100	100,020	0,279	-0,002	0,004	-0,212	0,012	0,213
02		1880	2879	2	1000	1000,002	988,125	-0,003	1,516	-3,038	4,289	5,256
03		11	26	2	100	100,020	0,908	0,005	0,014	0,519	0,039	0,521
Total		1898	2913				976392,891					27,944

Total uncertainties	Overall uncertainty in the year (%):	**988,126**	Trend uncertainty (%):	**5,286**

Table 81 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 uncer-	Uncertainty introduced into the trend in total national emissions
		Input data	Input data	Input data	Input data							
		kg	kg	%	%	%	%	%	%	%	%	%
01		6	8	2	100	100,020	0,376	0,000	0,005	-0,036	0,015	0,039
02		1552	2139	2	1000	1000,002	993,001	0,008	1,361	7,700	3,849	8,608
03		14	7	2	100	100,020	0,325	-0,007	0,004	-0,741	0,013	0,741
Total		1572	2154				986051,863					74,655

Total uncertainties	Overall uncertainty in the year (%):	**993,001**	Trend uncertainty (%):	**8,640**

Appendix 9 Lower Calorific Value (LCV) of fuels

Table 82 Time-series for calorific values of fuels (Danish Energy Authority, DEA 2004b).

		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
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	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	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	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	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	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	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	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	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	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	43,80
		34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80	34,80
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	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	43,50
		35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87	35,87
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	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	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	27,65
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	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	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	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	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	41,90
Natural Gas	GJ / 1000 Nm3	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	39,94
Town Gas	GJ / 1000 m3							17,00	17,00	17,00	17,00	17,01	16,88	17,39	16,88
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	24,73
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	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	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	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	14,50
Wood Chips	GJ/Rummeter	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	2,80
Firewood, Hardwood	GJ / m3	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	10,40
Firewood, Conifer	GJ / m3	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	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	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	14,70
Wood Waste	GJ/Rummeter	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	3,20
Biogas	GJ / 1000 m3								23,00	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	10,50
Liquid Biofuels											37,60	37,60	37,60	37,60	37,60
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	37,20

Table 83 Fuel category correspondence list, Danish Energy Authority, NERI and Climate convention reportings (IPCC).

Danish Energy Authority	NERI Emission database	IPCC fuel category
Other Hard Coal	Coal	Solid
Coke	Coke oven coke	Solid
Electricity Plant Coal	Coal	Solid
Brown Coal Briquettes	Brown coal briq.	Solid
Orimulsion	Orimulsion	Liquid
Petroleum Coke	Petroleum coke	Liquid
Fuel Oil	Residual oil	Liquid
Waste Oil	Residual oil	Liquid
Gas/Diesel Oil	Gas oil	Liquid
Other Kerosene	Kerosene	Liquid
LPG	LPG	Liquid
Refinery Gas	Refinery gas	Liquid
Town Gas	Natural gas	Gas
Natural Gas	Natural gas	Gas
Straw	Straw	Biomass
Wood Waste	Wood and simil.	Biomass
Wood Pellets	Wood and simil.	Biomass
Wood Chips	Wood and simil.	Biomass
Firewood, Hardwood & Conifer	Wood and simil.	Biomass
Waste Combustion	Municip. wastes	Biomass 1)
Fish Oil	Fish & Rape oil	Biomass
Biogas	Biogas	Biomass
Biogas, other	Biogas	Biomass
Biogas, landfill	Biogas	Biomass
Biogas, sewage sludge	Biogas	Biomass

1) CO_2 from plastic part included in Other fuels

Appendix 10 Adjustment of CO_2 emission

Table 84 Adjustment of CO_2 emission (ref. Danish Energy Authority).

Degree Days		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Actual Degree Days	Degree days	2093	2515	3022	3434	3148	3297	3837	3236	3217	3056	2902	3279	3011	3111
Normal Degree Days	Degree days	2691	2691	3370	3370	3370	3370	3370	3370	3370	3370	3370	3370	3370	3370
Net electricity import	TJ	25 373	-7 099	13 486	4 266	-17 424	-2 858	-55 444	-26 107	-15 552	-8 327	2 394	-2 071	-7 453	-30 760
Actual CO_2 emission	1.000.000 tonnes	52,7	62,8	56,7	58,9	62,7	59,6	73,0	63,2	59,4	56,4	52,4	53,8	53,0	58,0
Adjusted CO_2 emission	1.000.000 tonnes	60,9	61,8	60,8	59,8	59,7	59,1	58,4	57,6	56,2	55,4	54,3	53,7	52,4	51,8

Appendix 11 Reference approach

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

FUEL TYPES			Unit	Production	Imports	Exports	International bunkers	Stock change	Apparent consumption	Conversion factor [1] (TJ/Unit)	[1]	Apparent consumption (TJ)	Carbon emission factor (t C/TJ)	Carbon content (Gg C)	Carbon stored (Gg C)	Net carbon emissions (Gg C)	Fraction of carbon oxidized	Actual CO_2 emissions (Gg CO_2)
Liquid Fossil	Primary Fuels	Crude Oil	TJ	780.551,93	150.155,48	574.098,98		3.057,86	353.550,58	1,00	NCV	353.550,58	20,00	7.071,01		7.071,01	1,00	25.927,04
		Orimulsion	TJ	0,00	0,00	0,00		-1.921,40	1.921,40	1,00	NCV	1.921,40	22,00	42,27		42,27	1,00	154,99
		Natural Gas Liquids	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	17,20	0,00		0,00	1,00	0,00
	Secondary Fuels	Gasoline	TJ		38.197,16	44.363,08	18,16	-1.072,69	-5.111,39	1,00	NCV	-5.111,39	18,90	-96,61		-96,61	1,00	-354,22
		Jet Kerosene	TJ		22.975,27	21.494,43	29.710,44	-4.039,03	-24.190,57	1,00	NCV	-24.190,57	19,50	-471,72		-471,72	1,00	-1.729,63
		Other Kerosene	TJ		0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	19,60	0,00		0,00	1,00	0,00
		Shale Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas / Diesel Oil	TJ		82.301,53	48.524,02	20.729,77	1.467,11	11.580,63	1,00	NCV	11.580,63	20,20	233,93	0,00	233,93	1,00	857,74
		Residual Fuel Oil	TJ		37.489,83	47.253,02	20.461,87	1.912,75	-32.137,81	1,00	NCV	-32.137,81	21,10	-678,11		-678,11	1,00	-2.486,40
		LPG	TJ		103,13	4.769,19		-20,15	-4.645,91	1,00	NCV	-4.645,91	17,20	-79,91	0,00	-79,91	1,00	-293,00
		Ethane	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	16,80	0,00	0,00	0,00	1,00	0,00
		Naphtha	TJ		759,81	360,22		18,91	380,68	1,00	NCV	380,68	20,00	7,61	5,99	1,62	1,00	5,94
		Bitumen	TJ		8.061,33	125,81		-260,17	8.195,70	1,00	NCV	8.195,70	22,00	180,31	186,14	-5,83	1,00	-21,39
		Lubricants	TJ		2.054,61	217,04	103,95	-83,84	1.817,45	1,00	NCV	1.817,45	20,00	36,35	19,56	16,78	1,00	61,54
		Petroleum Coke	TJ		9.267,71	284,96		804,25	8.178,51	1,00	NCV	8.178,51	27,50	224,91		224,91	1,00	824,67
		Refinery Feedstocks	TJ		2.806,54	2.210,92		-964,12	1.559,75	1,00	NCV	1.559,75	20,00	31,19		31,19	1,00	114,38
		Other Oil	TJ		0,00	0,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
Liquid Fossil Totals												321.099,01		6.501,24	211,70	6.289,55		23.061,68
Solid Fossil	Primary Fuels	Anthracite [2]	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	26,80	0,00		0,00	1,00	0,00
		Coking Coal	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	25,80	0,00	0,00	0,00	1,00	0,00
		Other Bit. Coal	TJ	0,00	235.910,66	3.765,13	0,00	-4.194,81	236.340,34	1,00	NCV	236.340,34	25,80	6.097,58		6.097,58	1,00	22.357,80
		Sub-bit. Coal	TJ	0,00	0,00	0,00	0,00	0,00	0,00	1,00	NCV	0,00	26,20	0,00		0,00	1,00	0,00
		Lignite	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	27,60	0,00		0,00	1,00	0,00
		Oil Shale	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	29,10	0,00		0,00	1,00	0,00
		Peat	TJ	0,00	0,00	0,00		0,00	0,00	1,00	NCV	0,00	28,90	0,00		0,00	1,00	0,00
	Secondary Fuels	BKB & Patent Fuel	TJ		5,82	8,89		-3,07	0,00	1,00	NCV	0,00	25,80	0,00		0,00	1,00	0,00
		Coke Oven/Gas Coke	TJ		932,97	0,00		59,51	873,46	1,00	NCV	873,46	29,50	25,77		25,77	1,00	94,48
Solid Fuel Totals												237.213,80		6.123,35	0,00	6.123,35		22.452,28
Gaseous Fossil		Natural Gas (Dry)	TJ	301.555,94	0,00	108.622,54		-2.199,96	195.133,35	1,00	NCV	195.133,35	15,30	2.985,54	0,00	2.985,54	1,00	10.946,98
Total												**753.446,16**		**15.610,13**	**211,70**	**15.398,44**		**56.460,93**
Biomass total												92.700,68		2.746,35	0,00	2.746,35		10.069,93
		Solid Biomass	TJ	82.753,81	6.368,76	0,00		0,00	89.122,57	1,00	NCV	89.122,57	29,90	2.664,76		2.664,76	1,00	9.770,80
		Liquid Biomass	TJ	1.692,00	0,00	1.692,00		0,00	0,00	1,00	NCV	0,00	20,00	0,00		0,00	1,00	0,00
		Gas Biomass	TJ	3.578,11	0,00	0,00		0,00	3.578,11	1,00	NCV	3.578,11	22,80	81,58		81,58	1,00	299,13

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

Denmark
2003
2005, Mar15

FUEL TYPES	Reference approach		National approach [1]		Difference [2]	
	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (PJ)	CO_2 emissions (Gg)	Energy consumption (%)	CO_2 emissions (%)
Liquid Fuels (excluding international bunkers)	321,10	23.061,68	305,55	22.493,76	5,09	2,52
Solid Fuels (excluding international bunkers)	237,21	22.452,28	238,99	22.716,70	-0,74	-1,16
Gaseous Fuels	195,13	10.946,98	195,00	11.152,32	0,07	-1,84
Other [3]	-10,82	649,16	1,00	722,30	-1.179,48	-10,13
Total [3]	**742,63**	**57.110,09**	**740,54**	**57.085,08**	**0,28**	**0,04**

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

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

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

Table 85 Fuel category correspondence list for the reference approach.

Reference approach		Danish energy statistics
Biomass	Gas Biomass	Biogas, other
Biomass	Gas Biomass	Biogas, landfill
Biomass	Gas Biomass	Biogas, sewage sludge
Biomass	Liquid Biomass	Liquid biofuels
Biomass	Solid Biomass	Fish oil
Biomass	Solid Biomass	Waste combustion, plastic
Biomass	Solid Biomass	Waste combustion, other
Biomass	Solid Biomass	Firewood
Biomass	Solid Biomass	Straw
Biomass	Solid Biomass	Wood Chips
Biomass	Solid Biomass	Firewood
Biomass	Solid Biomass	Wood Pellets
Liquid fossil	Bitumen	Bitumen
Liquid fossil	Crude oil	Crude Oil
Liquid fossil	Crude oil	Waste Oil
Liquid fossil	Ethane	-
Liquid fossil	Gas/diesel oil	Gas/Diesel Oil
Liquid fossil	Gasoline	Aviation Gasoline
Liquid fossil	Gasoline	Motor Gasoline
Liquid fossil	Jet Kerosene	JP1
Liquid fossil	Jet Kerosene	JP4
Liquid fossil	LPG	LPG
Liquid fossil	Lubricants	Lubricants
Liquid fossil	Naphtha	White Spirit
Liquid fossil	Naphtha	Naphtha (LVN)
Gaseous fossil	Natural gas	Natural Gas
Liquid fossil	Natural gas liquids	-
Liquid fossil	Orimulsion	Orimulsion
Liquid fossil	Other kerosene	Other Kerosene
Liquid fossil	Petroleum coke	Petroleum Coke
Liquid fossil	Refinery feedstocks	Refinery Feedstocks
Liquid fossil	Residual fuel oil	Fuel Oil
Liquid fossil	Shale oil	-
Solid fossil	Anthracite	-
Solid fossil	BKB & Patent fuel	Brown Coal Briquettes
Solid fossil	Coke oven/gas coke	Coke
Solid fossil	Coking Coal	-
Solid fossil	Lignite	-
Solid fossil	Oil Shale	-
Solid fossil	Other Bit. Coal	Other Hard Coal
Solid fossil	Other Bit. Coal	Electricity Plant Coal
Solid fossil	Peat	-
Solid fossil	Sub-bit. coal	-

Appendix 12 Emission inventory 2003 based on SNAP sectors

Table 86 Emission inventory 2003 based on SNAP sectors.

SNAP 2)	SO2 [Mg]	NOX [Mg]	NMVOC [Mg]	CH4 [Mg]	CO [Mg]	CO_2 1) [Gg]	N2O [Mg]	TSP [Mg]	PM10 [Mg]	PM2,5 [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,,) [kg]	Indeno [kg]
Total 01	17461	64508	4263	15706	12629	37354	1057	1432	1141	953	458	215	503	615	716	3326	1906	1028	13338	242	33	15	8	19	8
101	-	0	-	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10101	14017	39525	411	491	2936	23735	722	746	601	495	128	18	240	142	214	1902	256	948	40	23	5	1	1	4	2
10102	969	4161	56	45	706	3841	51	134	89	72	162	79	98	218	156	232	903	48	8656	2	0	0	0	0	0
10103	568	1360	16	23	255	1169	14	56	39	32	134	34	29	107	124	148	438	1	2702	4	0	0	0	0	0
10104	482	3768	78	78	585	2917	89	154	151	126	6	4	4	8	5	51	79	5	249	19	5	1	1	2	2
10105	44	5500	3191	14597	5199	1704	36	25	6	5	0	0	0	0	0	4	0	0	1	4	1	1	0	0	0
102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10202	40	67	11	9	65	63	2	5	4	4	2	3	3	3	2	54	3	2	30	1	0	0	0	0	0
10203	837	1837	440	315	2429	1379	49	181	130	103	14	65	99	126	211	353	205	10	1658	186	20	11	5	12	4
10204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10205	0	29	20	89	30	10	0	0	0	0	-	-	-	-	-	-	-	-	-	0	0	-	-	-	-
103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10304	8	626	2	2	24	216	8	19	19	19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10306	487	1020	-	-	219	796	27	109	100	96	13	12	30	12	4	582	21	11	3	2	0	0	0	0	0
104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10402	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10407	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10501	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10502	0	34	1	2	9	18	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10503	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10504	8	6562	37	39	163	1501	58	3	2	1	-	-	-	-	-	-	-	-	-	0	0	0	0	0	0
10505	1	19	2	17	11	3	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total 02	3612	7654	13494	7617	158778	7830	215	12323	11683	11048	71	146	113	219	273	821	327	173	3032	13724	3742	1224	2879	3877	2139
201	248	765	622	257	607	1005	25	168	166	157	10	19	41	44	69	166	150	19	527	792	217	72	165	223	117
20101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20103	106	17	1	1	5	18	1	22	19	15	5	1	3	13	25	3	4	0	27	1	0	-	0	0	-
20104	0	4	0	0	0	2	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20105	11	459	127	704	324	103	2	2	0	0	-	-	-	-	-	-	-	-	0	0	0	0	-	0	0
20106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
202	1737	4619	10945	3807	148987	5629	159	11600	11004	10417	35	111	30	140	155	52	129	130	2392	12355	3372	1124	2574	3485	1816
20201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20202	0	2	0	1	1	4	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20204	0	244	170	755	254	83	2	1	0	0	-	-	-	-	-	-	-	-	-	0	0	0	-	0	0
20205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
203	1497	805	1288	461	7971	780	23	526	492	459	21	15	37	23	24	594	43	24	85	574	153	27	140	168	205

20301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20302	3	2	0	0	2	1	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	0	0	0
20303	0	7	0	0	0	3	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20304	11	731	341	1632	625	202	4	4	1	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
20305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total 03	5851	13419	721	1485	12308	5452	149	1023	683	407	193	169	368	177	237	4684	1154	791	1542	3468	92	16	26	8	7
301	3253	3120	394	417	2540	3148	77	251	185	136	86	114	186	120	71	3453	165	81	883	166	12	10	1	3	3
30101	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30102	1241	490	33	43	132	416	10	129	40	13	28	22	59	26	10	1063	49	21	23	27	2	2	0	1	1
30103	7	43	14	11	74	37	1	6	4	3	-	2	-	2	2	-	1	-	40	1	0	0	-	0	-
30104	2	610	9	10	40	373	14	1	0	0	-	-	-	-	-	-	-	-	-	0	-	0	-	0	0
30105	1	267	181	807	274	90	2	1	0	0	0	0	0	0	-	1	0	0	-	0	0	0	-	0	0
30106	0	1	0	0	1	1	0	0	0	0	0	-	0	0	0	-	0	0	0	0	-	-	-	-	-
302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30301	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30302	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30303	-	-	-	-	-	-	-	175	52	8	26	12	96	-	-	113	629	437	437	-	-	-	-	-	-
30304	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30305	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30307	-	-	-	-	-	-	-	2	1	1	-	0	-	1	-	-	9	-	-	-	-	-	-	-	-
30308	-	-	-	-	-	-	-	1	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30309	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30310	-	-	-	-	-	-	-	24	21	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30311	882	8401	77	177	1103	1225	40	175	157	70	51	18	25	25	153	51	25	18	127	3264	78	3	25	2	2
30312	-	-	-	-	-	-	-	30	15	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30313	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30315	0	397	2	6	6	54	1	26	23	21	-	-	-	-	-	-	272	234	25	-	-	-	-	-	-
30316	-	-	-	-	-	-	-	102	92	71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30317	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30318	464	89	10	14	8137	106	3	103	92	72	2	0	2	2	1	3	4	0	7	10	1	1	0	0	0
30319	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30321	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30323	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30325	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30326	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1) Including CO_2 emission from biomass

2) SNAP sector codes are shown in appendix 3

Annex 2B

List of content

Annex 1: Fleet data 1990-2003 for road transport (No. vehicles)

Sector	Subsector	Tech	FYear	LYear	1985	1986	1987	1988	1989	1990	1991	1992	1993
Passenger Cars	Gasoline <1.4 l	PRE ECE	0	1969	80570	70965	61916	53661	49471	46209	44014	42804	36466
Passenger Cars	Gasoline <1.4 l	ECE 15/00-01	1970	1978	333715	319741	297372	247513	217970	187912	161642	139010	119424
Passenger Cars	Gasoline <1.4 l	ECE 15/02	1979	1980	105027	82699	76343	98297	93397	86959	80041	73306	66422
Passenger Cars	Gasoline <1.4 l	ECE 15/03	1981	1985	345142	373558	358057	307504	306014	300791	294878	288227	280146
Passenger Cars	Gasoline <1.4 l	ECE 15/04	1986	1990	0	46574	114381	206105	245261	272012	270182	268686	268154
Passenger Cars	Gasoline <1.4 l	Euro I	1991	1996	0	1	1	1	1	10000	49608	87121	122067
Passenger Cars	Gasoline <1.4 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline <1.4 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline 1.4 - 2.0 l	PRE ECE	0	1969	61592	54869	48157	41737	38477	35940	34233	33292	28362
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/00-01	1970	1978	218180	211819	199591	168672	148281	127631	109641	94188	80844
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/02	1979	1980	60836	50077	46439	62263	59148	55063	50674	46402	42040
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/03	1981	1985	210574	222174	211066	178826	177842	174545	170750	166596	161592
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/04	1986	1990	0	31049	74328	131279	159911	180298	178950	177873	177525
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro I	1991	1996	0	0	0	0	0	10000	45647	82427	119744
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline >2.0 l	PRE ECE	0	1969	5923	5243	4586	3975	3665	3423	3260	3171	2701
Passenger Cars	Gasoline >2.0 l	ECE 15/00-01	1970	1978	18532	17532	16673	14345	12566	10781	9234	7914	6781
Passenger Cars	Gasoline >2.0 l	ECE 15/02	1979	1980	8730	6326	4456	4966	4718	4392	4043	3702	3355
Passenger Cars	Gasoline >2.0 l	ECE 15/03	1981	1985	31066	33256	31914	25237	25111	24667	24157	23595	22912
Passenger Cars	Gasoline >2.0 l	ECE 15/04	1986	1990	0	4085	9932	19410	22964	15679	15524	15390	15339
Passenger Cars	Gasoline >2.0 l	Euro I	1991	1996	0	0	0	0	0	10000	13961	17871	21674
Passenger Cars	Gasoline >2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Euro I	1991	1996	0	0	0	0	0	0	4041	8031	11912
Passenger Cars	Diesel <2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Conventional	0	1990	75828	78431	79759	80201	80187	79709	75788	72288	68529
Passenger Cars	Diesel >2.0 l	Euro I	1991	1996	0	0	0	0	0	0	213	423	627
Passenger Cars	Diesel >2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel >2.0 l	Conventional	0	1990	3451	3568	3629	3649	3707	3702	3556	3425	3281

Sector	Subsector	Tech	FYear	LYear	1985	1986	1987	1988	1989	1990	1991	1992	1993
Passenger Cars	LPG	Euro I	1991	1996	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Conventional	0	1990	287	287	287	287	287	286	286	288	289
Passenger Cars	2-Stroke	Conventional	0	9999	4823	5402	5997	6026	5853	5417	4804	4308	3747
Light Duty Vehicles	Gasoline <3.5t	Conventional	0	1994	33049	36810	39724	41321	41967	42333	43215	44179	45486
Light Duty Vehicles	Gasoline <3.5t	Euro I	1995	1998	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Gasoline <3.5t	Euro II	1999	2001	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Gasoline <3.5t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Conventional	0	1994	121431	135248	145954	151822	154198	155543	158781	162324	167129
Light Duty Vehicles	Diesel <3.5 t	Euro I	1995	1998	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Euro II	1999	2001	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Gasoline >3.5 t	Conventional	0	9999	251	261	262	255	254	250	255	260	268
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Conventional	0	1993	5140	5338	5353	5228	5194	5108	5214	5330	5488
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Conventional	0	1993	10350	10750	10779	10528	10460	10286	10500	10734	11052
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	0	1993	13115	13623	13659	13342	13255	13034	13306	13602	14005
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Conventional	0	1993	11517	11962	11994	11715	11640	11446	11684	11944	12298
Heavy Duty Vehicles	Diesel >32t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0

Sector	Subsector	Tech	FYear	LYear	1985	1986	1987	1988	1989	1990	1991	1992	1993
Buses	Urban Buses	Conventional	0	1993	4712	4768	4771	4761	4724	4753	4561	4522	4490
Buses	Urban Buses	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Buses	Urban Buses	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Buses	Urban Buses	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Buses	Coaches	Conventional	0	1993	3298	3337	3339	3332	3307	3327	2868	3007	3086
Buses	Coaches	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Buses	Coaches	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Buses	Coaches	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Mopeds	<50 cm³	Conventional	0	1999	151000	139000	133000	127000	124000	120000	118000	113000	109000
Mopeds	<50 cm³	97/24/EC I	2000	2002	0	0	0	0	0	0	0	0	0
Mopeds	<50 cm³	97/24/EC II	2003	9999	0	0	0	0	0	0	0	0	0
Motorcycles	2-stroke >50 cm³	Conventional	0	1999	6209	6280	6368	6368	6488	6617	6804	6904	7111
Motorcycles	2-stroke >50 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke <250 cm³	Conventional	0	1999	7037	7118	7218	7217	7353	7499	7712	7824	8059
Motorcycles	4-stroke <250 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke 250 - 750 cm³	Conventional	0	1999	19352	19573	19848	19845	20222	20622	21207	21516	22162
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke >750 cm³	Conventional	0	1999	8796	8897	9022	9021	9192	9374	9639	9780	10074
Motorcycles	4-stroke >750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0

Sector	Subsector	Tech	FYear	LYear	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Passenger Cars	Gasoline <1.4 l	PRE ECE	0	1969	39959	37597	37130	3434	2761	2103	1744	1614	1475	1392
Passenger Cars	Gasoline <1.4 l	ECE 15/00-01	1970	1978	80742	67991	53302	44338	31104	22511	17980	15837	14155	13149
Passenger Cars	Gasoline <1.4 l	ECE 15/02	1979	1980	50119	43384	35052	26097	17585	10873	7348	5544	4203	3145
Passenger Cars	Gasoline <1.4 l	ECE 15/03	1981	1985	261998	250043	235177	215301	183113	147111	118929	97930	79016	60706
Passenger Cars	Gasoline <1.4 l	ECE 15/04	1986	1990	265860	262990	259954	265188	264791	254032	235890	219216	194543	171430
Passenger Cars	Gasoline <1.4 l	Euro I	1991	1996	177991	230063	282488	289374	275572	273582	270268	267260	261791	255242
Passenger Cars	Gasoline <1.4 l	Euro II	1997	2000	0	0	0	58502	119142	170981	209279	205833	201734	199841
Passenger Cars	Gasoline <1.4 l	Euro III	2001	2005	0	0	0	0	0	0	0	34695	73385	104983
Passenger Cars	Gasoline 1.4 - 2.0 l	PRE ECE	0	1969	31079	29242	28879	2671	2148	1635	1356	1255	1147	1083
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/00-01	1970	1978	54600	45991	36079	30465	21520	15647	12537	11077	9923	9230
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/02	1979	1980	31712	27445	22173	16509	11141	6870	4642	3500	2659	1987
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/03	1981	1985	150612	143386	133413	122642	103931	83270	67222	55300	44572	34238
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/04	1986	1990	176045	174195	172298	176155	179510	172582	160800	149915	133745	118448
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro I	1991	1996	184854	250826	322960	330407	315731	313279	309587	306414	300335	293205
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro II	1997	2000	0	0	0	80440	163821	235099	287758	283021	277385	274781
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	47705	100904	144352
Passenger Cars	Gasoline >2.0 l	PRE ECE	0	1969	2960	2785	2750	254	205	156	129	120	109	103
Passenger Cars	Gasoline >2.0 l	ECE 15/00-01	1970	1978	4567	3849	3022	2619	1881	1366	1110	986	885	825
Passenger Cars	Gasoline >2.0 l	ECE 15/02	1979	1980	2531	2191	1770	1318	888	549	371	280	212	159
Passenger Cars	Gasoline >2.0 l	ECE 15/03	1981	1985	21429	20432	19053	17571	14934	12016	9722	8009	6459	4964
Passenger Cars	Gasoline >2.0 l	ECE 15/04	1986	1990	15120	14844	14546	14977	23975	22975	21251	19699	17377	15265
Passenger Cars	Gasoline >2.0 l	Euro I	1991	1996	28044	34257	40813	41567	31121	30887	30519	30193	29586	28866
Passenger Cars	Gasoline >2.0 l	Euro II	1997	2000	0	0	0	7313	14893	21373	26160	25729	25217	24980
Passenger Cars	Gasoline >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	4337	9173	13123
Passenger Cars	Diesel <2.0 l	Euro I	1991	1996	18412	24751	31440	31580	31998	35415	39518	43826	48984	53830
Passenger Cars	Diesel <2.0 l	Euro II	1997	2000	0	0	0	7316	15312	24505	33856	37328	41736	46572
Passenger Cars	Diesel <2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	6313	15219	24513
Passenger Cars	Diesel <2.0 l	Conventional	0	1990	62139	58843	55000	48153	43893	43004	42861	42885	42300	40702
Passenger Cars	Diesel >2.0 l	Euro I	1991	1996	969	1303	1655	1662	1684	1864	2087	2313	2583	2838
Passenger Cars	Diesel >2.0 l	Euro II	1997	2000	0	0	0	385	806	1290	1789	1971	2202	2456
Passenger Cars	Diesel >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	332	801	1290
Passenger Cars	Diesel >2.0 l	Conventional	0	1990	3040	2905	2746	2461	2266	2237	2228	2229	2187	2096

Sector	Subsector	Tech	FYear	LYear	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Passenger Cars	LPG	Euro I	1991	1996	0	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro II	1997	2000	0	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro III	2001	2005	0	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Conventional	0	1990	289	301	311	172	97	44	32	63	21	15
Passenger Cars	2-Stroke	Conventional	0	9999	3029	2443	1665	1248	761	400	300	200	150	100
Light Duty Vehicles	Gasoline <3.5t	Conventional	0	1994	47261	44601	41519	37209	34454	31489	28488	25423	21615	18838
Light Duty Vehicles	Gasoline <3.5t	Euro I	1995	1998	0	4259	8524	12645	17212	16632	15979	15527	15049	13949
Light Duty Vehicles	Gasoline <3.5t	Euro II	1999	2001	0	0	0	0	0	4705	9299	14017	13917	13805
Light Duty Vehicles	Gasoline <3.5t	Euro III	2002	2006	0	0	0	0	0	0	0	0	5140	10719
Light Duty Vehicles	Diesel <3.5 t	Conventional	0	1994	173650	163877	152553	142109	131572	122992	115695	105397	92990	82927
Light Duty Vehicles	Diesel <3.5 t	Euro I	1995	1998	0	15648	31318	48292	65727	64964	64894	64370	64743	61406
Light Duty Vehicles	Diesel <3.5 t	Euro II	1999	2001	0	0	0	0	0	18376	37766	58112	59870	60771
Light Duty Vehicles	Diesel <3.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	22112	47186
Heavy Duty Vehicles	Gasoline >3.5 t	Conventional	0	9999	279	288	295	261	274	253	257	249	249	247
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Conventional	0	1993	5205	4891	4532	3999	3692	3079	2406	1979	1739	1407
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro I	1994	1996	497	1004	1506	1440	1435	1269	1057	951	956	813
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro II	1997	2001	0	0	0	529	1087	1487	1703	1990	2064	1872
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	484	941
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Conventional	0	1993	10482	9850	9126	7800	6603	5613	5085	4210	3136	2571
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro I	1994	1996	1001	2022	3033	2808	2566	2314	2235	2024	1724	1486
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro II	1997	2001	0	0	0	1032	1945	2710	3600	4234	3724	3421
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	872	1720
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	0	1993	13283	12481	11564	10720	9832	8982	7933	6814	5525	4571
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	1994	1996	1268	2562	3844	3859	3821	3702	3486	3276	3037	2642
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	1997	2001	0	0	0	1419	2896	4336	5616	6853	6560	6082
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	1537	3058
Heavy Duty Vehicles	Diesel >32t	Conventional	0	1993	11664	10960	10154	9337	8720	8180	7361	6527	5486	4716
Heavy Duty Vehicles	Diesel >32t	Euro I	1994	1996	1114	2250	3376	3362	3389	3371	3234	3138	3016	2726
Heavy Duty Vehicles	Diesel >32t	Euro II	1997	2001	0	0	0	1236	2568	3949	5211	6564	6514	6275
Heavy Duty Vehicles	Diesel >32t	Euro III	2002	2006	0	0	0	0	0	0	0	0	1526	3156

Sector	Subsector	Tech	FYear	LYear	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Buses	Urban Buses	Conventional	0	1993	4083	3635	3261	2946	2792	2542	2319	2319	1977	1859
Buses	Urban Buses	Euro I	1994	1996	390	746	1084	1060	972	913	852	852	752	713
Buses	Urban Buses	Euro II	1997	2001	0	0	0	390	729	1053	1345	1345	1525	1447
Buses	Urban Buses	Euro III	2002	2006	0	0	0	0	0	0	0	0	346	670
Buses	Coaches	Conventional	0	1993	2927	4507	4156	3662	3369	3007	2724	2724	2165	1962
Buses	Coaches	Euro I	1994	1996	280	925	1381	1318	1173	1080	1001	1001	823	752
Buses	Coaches	Euro II	1997	2001	0	0	0	485	879	1246	1579	1579	1670	1527
Buses	Coaches	Euro III	2002	2006	0	0	0	0	0	0	0	0	379	706
Mopeds	<50 cm³	Conventional	0	1999	105000	114167	123333	132500	141667	150833	143607	136249	128209	120305
Mopeds	<50 cm³	97/24/EC I	2000	2002	0	0	0	0	0	0	16393	28751	42791	40611
Mopeds	<50 cm³	97/24/EC II	2003	9999	0	0	0	0	0	0	0	0	0	8084
Motorcycles	2-stroke >50 cm³	Conventional	0	1999	7406	7672	8214	8980	9598	10385	11054	11367	11582	11850
Motorcycles	2-stroke >50 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke <250 cm³	Conventional	0	1999	8394	8695	9310	10177	10878	11769	11916	11367	12882	13380
Motorcycles	4-stroke <250 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	613	1074	1348	1806
Motorcycles	4-stroke 250 - 750 cm³	Conventional	0	1999	23083	23911	25602	27986	29914	32365	32768	33910	35424	36794
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	1685	2953	3707	4967
Motorcycles	4-stroke >750 cm³	Conventional	0	1999	10492	10869	11637	12721	13597	14712	14894	15414	16102	16725
Motorcycles	4-stroke >750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	766	1342	1685	2258

Annex 2: Mileage data 1990-2003 for road transport (km)

Sector	Subsector	Tech	FYear	LYear	1985	1986	1987	1988	1989	1990	1991	1992	1993
Passenger Cars	Gasoline <1.4 l	PRE ECE	0	1969	9654	9441	9348	9515	9557	10352	11120	11847	12282
Passenger Cars	Gasoline <1.4 l	ECE 15/00-01	1970	1978	12879	12266	11854	11652	11251	12073	12735	13119	13036
Passenger Cars	Gasoline <1.4 l	ECE 15/02	1979	1980	16201	15060	13954	13614	13193	13225	13605	14495	15028
Passenger Cars	Gasoline <1.4 l	ECE 15/03	1981	1985	19010	17912	17078	16606	15707	16370	16830	16920	16820
Passenger Cars	Gasoline <1.4 l	ECE 15/04	1986	1990	0	20553	19951	19628	19313	19941	20341	20763	20356
Passenger Cars	Gasoline <1.4 l	Euro I	1991	1996	0	1	1	1	1	22535	23984	25041	25397
Passenger Cars	Gasoline <1.4 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline <1.4 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline 1.4 - 2.0 l	PRE ECE	0	1969	9654	9441	9348	9515	9557	10352	11120	11847	12282
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/00-01	1970	1978	12879	12266	11854	11652	11251	12073	12735	13119	13036
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/02	1979	1980	16201	15060	13954	13614	13193	13225	13605	14495	15028
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/03	1981	1985	19010	17912	17078	16606	15707	16370	16830	16920	16820
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/04	1986	1990	0	20553	19951	19628	19313	19941	20341	20763	20356
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro I	1991	1996	0	0	0	0	0	22535	23984	25041	25397
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline >2.0 l	PRE ECE	0	1969	9654	9441	9348	9515	9557	10352	11120	11847	12282
Passenger Cars	Gasoline >2.0 l	ECE 15/00-01	1970	1978	12879	12266	11854	11652	11251	12073	12735	13119	13036
Passenger Cars	Gasoline >2.0 l	ECE 15/02	1979	1980	16201	15060	13954	13614	13193	13225	13605	14495	15028
Passenger Cars	Gasoline >2.0 l	ECE 15/03	1981	1985	19010	17912	17078	16606	15707	16370	16830	16920	16820
Passenger Cars	Gasoline >2.0 l	ECE 15/04	1986	1990	0	20553	19951	19628	19313	19941	20341	20763	20356
Passenger Cars	Gasoline >2.0 l	Euro I	1991	1996	0	0	0	0	0	22535	23984	25041	25397
Passenger Cars	Gasoline >2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Euro I	1991	1996	0	0	0	0	0	0	44822	44911	43972
Passenger Cars	Diesel <2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Conventional	0	1990	30188	30188	30188	30188	30484	30874	30888	30400	29591
Passenger Cars	Diesel >2.0 l	Euro I	1991	1996	0	0	0	0	0	0	44822	44911	43972
Passenger Cars	Diesel >2.0 l	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel >2.0 l	Conventional	0	1990	30188	30188	30188	30188	30484	30874	30888	30400	29591

Sector	Subsector	Tech	FYear	LYear	1985	1986	1987	1988	1989	1990	1991	1992	1993
Passenger Cars	LPG	Euro I	1991	1996	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro II	1997	2000	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro III	2001	2005	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Conventional	0	1990	19010	17912	17078	16606	15707	16370	16830	16920	16820
Passenger Cars	2-Stroke	Conventional	0	9999	19010	17912	17078	16606	15707	16370	16830	16920	16820
Light Duty Vehicles	Gasoline <3.5t	Conventional	0	1994	19882	19445	19252	19597	19195	20255	20573	21208	21167
Light Duty Vehicles	Gasoline <3.5t	Euro I	1995	1998	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Gasoline <3.5t	Euro II	1999	2001	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Gasoline <3.5t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Conventional	0	1994	35193	37676	36474	36501	38052	40234	40672	38721	37230
Light Duty Vehicles	Diesel <3.5 t	Euro I	1995	1998	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Euro II	1999	2001	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Gasoline >3.5 t	Conventional	0	9999	22460	21965	21747	22137	21683	24464	24848	25614	25565
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Conventional	0	1993	31160	33359	32294	32318	33691	41061	41509	39516	37996
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Conventional	0	1993	43415	46479	44996	45029	46942	49634	50175	47767	45929
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	0	1993	60351	64610	62549	62594	65254	68996	69748	66402	63845
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Conventional	0	1993	60351	64610	62549	62594	65254	68996	69748	66402	63845
Heavy Duty Vehicles	Diesel >32t	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Euro III	2002	2006	0	0	0	0	0	0	0	0	0

Sector	Subsector	Tech	FYear	LYear	1985	1986	1987	1988	1989	1990	1991	1992	1993
Buses	Urban Buses	Conventional	0	1993	91053	97478	94369	94437	98450	104096	107730	104029	103324
Buses	Urban Buses	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Buses	Urban Buses	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Buses	Urban Buses	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Buses	Coaches	Conventional	0	1993	81623	87383	84595	84656	88254	93315	98696	98846	98624
Buses	Coaches	Euro I	1994	1996	0	0	0	0	0	0	0	0	0
Buses	Coaches	Euro II	1997	2001	0	0	0	0	0	0	0	0	0
Buses	Coaches	Euro III	2002	2006	0	0	0	0	0	0	0	0	0
Mopeds	<50 cm³	Conventional	0	1999	2018	1973	1954	1989	1948	2056	2137	2235	2304
Mopeds	<50 cm³	97/24/EC I	2000	2002	0	0	0	0	0	0	0	0	0
Mopeds	<50 cm³	97/24/EC II	2003	9999	0	0	0	0	0	0	0	0	0
Motorcycles	2-stroke >50 cm³	Conventional	0	1999	5708	5582	5527	5626	5511	5815	6072	6372	6557
Motorcycles	2-stroke >50 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke <250 cm³	Conventional	0	1999	5708	5582	5527	5626	5511	5815	6072	6372	6557
Motorcycles	4-stroke <250 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke 250 - 750 cm³	Conventional	0	1999	5708	5582	5527	5626	5511	5815	6072	6372	6557
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke >750 cm³	Conventional	0	1999	5708	5582	5527	5626	5511	5815	6072	6372	6557
Motorcycles	4-stroke >750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0

Sector	Subsector	Tech	FYear	LYear	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Passenger Cars	Gasoline <1.4 l	PRE ECE	0	1969	12679	12387	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline <1.4 l	ECE 15/00-01	1970	1978	12679	12387	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline <1.4 l	ECE 15/02	1979	1980	15513	13532	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline <1.4 l	ECE 15/03	1981	1985	16701	15701	14867	14403	14225	13461	12591	11922	11743	11846
Passenger Cars	Gasoline <1.4 l	ECE 15/04	1986	1990	19947	18688	17564	16233	15648	14929	14356	12416	13780	13408
Passenger Cars	Gasoline <1.4 l	Euro I	1991	1996	25885	24768	23130	22344	21207	19843	18497	18409	17226	16508
Passenger Cars	Gasoline <1.4 l	Euro II	1997	2000	0	0	0	25981	25671	24357	24054	22954	21396	20639
Passenger Cars	Gasoline <1.4 l	Euro III	2001	2005	0	0	0	0	0	0	0	25954	25172	26178
Passenger Cars	Gasoline 1.4 - 2.0 l	PRE ECE	0	1969	12679	12387	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/00-01	1970	1978	12679	12387	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/02	1979	1980	15513	13532	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/03	1981	1985	16701	15701	14867	14403	14225	13461	12591	11922	11743	11846
Passenger Cars	Gasoline 1.4 - 2.0 l	ECE 15/04	1986	1990	19947	18688	17564	16233	15648	14929	14356	12416	13780	13408
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro I	1991	1996	25885	24768	23130	22344	21207	19843	18497	18409	17226	16508
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro II	1997	2000	0	0	0	25981	25671	24357	24054	22954	21396	20639
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	25954	25172	26178
Passenger Cars	Gasoline >2.0 l	PRE ECE	0	1969	12679	12387	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline >2.0 l	ECE 15/00-01	1970	1978	12679	12387	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline >2.0 l	ECE 15/02	1979	1980	15513	13532	12152	11935	11988	11691	11507	11922	11743	11846
Passenger Cars	Gasoline >2.0 l	ECE 15/03	1981	1985	16701	15701	14867	14403	14225	13461	12591	11922	11743	11846
Passenger Cars	Gasoline >2.0 l	ECE 15/04	1986	1990	19947	18688	17564	16233	15648	14929	14356	12416	13780	13408
Passenger Cars	Gasoline >2.0 l	Euro I	1991	1996	25885	24768	23130	22344	21207	19843	18497	18409	17226	16508
Passenger Cars	Gasoline >2.0 l	Euro II	1997	2000	0	0	0	25981	25671	24357	24054	22954	21396	20639
Passenger Cars	Gasoline >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	25954	25172	26178
Passenger Cars	Diesel <2.0 l	Euro I	1991	1996	44800	44746	43410	41641	39363	38090	35677	34320	33095	32058
Passenger Cars	Diesel <2.0 l	Euro II	1997	2000	0	0	0	47992	47256	46753	45221	42794	41107	40082
Passenger Cars	Diesel <2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	48385	48362	47987
Passenger Cars	Diesel <2.0 l	Conventional	0	1990	29501	29228	28169	27809	27304	27242	26288	22832	25212	25125
Passenger Cars	Diesel >2.0 l	Euro I	1991	1996	44800	44746	43410	41641	39363	38090	35677	34320	33095	32058
Passenger Cars	Diesel >2.0 l	Euro II	1997	2000	0	0	0	47992	47256	46753	45221	42794	41107	40082
Passenger Cars	Diesel >2.0 l	Euro III	2001	2005	0	0	0	0	0	0	0	48385	48362	47987
Passenger Cars	Diesel >2.0 l	Conventional	0	1990	29501	29228	28169	27809	27304	27242	26288	22832	25212	25125

Sector	Subsector	Tech	FYear	LYear	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Passenger Cars	LPG	Euro I	1991	1996	0	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro II	1997	2000	0	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Euro III	2001	2005	0	0	0	0	0	0	0	0	0	0
Passenger Cars	LPG	Conventional	0	1990	16701	15701	14867	12868	14225	13461	12591	11922	11743	11846
Passenger Cars	2-Stroke	Conventional	0	9999	16701	15701	14867	12868	14225	13461	12591	11922	11743	11846
Light Duty Vehicles	Gasoline <3.5t	Conventional	0	1994	21003	20157	20005	19559	18762	18082	18101	16619	18399	17511
Light Duty Vehicles	Gasoline <3.5t	Euro I	1995	1998	0	20157	20005	19559	18762	18082	18101	16619	18399	17511
Light Duty Vehicles	Gasoline <3.5t	Euro II	1999	2001	0	0	0	0	0	18082	18101	16619	18399	17511
Light Duty Vehicles	Gasoline <3.5t	Euro III	2002	2006	0	0	0	0	0	0	0	0	18399	17511
Light Duty Vehicles	Diesel <3.5 t	Conventional	0	1994	38732	36909	37282	37023	35010	34193	32789	32130	32060	32924
Light Duty Vehicles	Diesel <3.5 t	Euro I	1995	1998	0	36909	37282	37023	35010	34193	32789	32130	32060	32924
Light Duty Vehicles	Diesel <3.5 t	Euro II	1999	2001	0	0	0	0	0	34193	32789	32130	32060	32924
Light Duty Vehicles	Diesel <3.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	32060	32924
Heavy Duty Vehicles	Gasoline >3.5 t	Conventional	0	9999	25367	24346	24162	21140	21559	21272	22009	23191	25362	25494
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Conventional	0	1993	39528	37666	38048	30803	31809	33583	34246	44099	43711	48920
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro I	1994	1996	39528	37666	38048	30803	31809	33583	34246	44099	43711	48920
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro II	1997	2001	0	0	0	30803	31809	33583	34246	44099	43711	48920
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	43711	48920
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Conventional	0	1993	47781	45532	45991	43199	42348	39158	37550	20945	17878	19777
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro I	1994	1996	47781	45532	45991	43199	42348	39158	37550	20945	17878	19777
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro II	1997	2001	0	0	0	43199	42348	39158	37550	20945	17878	19777
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	17878	19777
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	0	1993	66422	63294	63934	64717	65653	66838	64092	68254	66841	71891
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	1994	1996	66422	63294	63934	64717	65653	66838	64092	68254	66841	71891
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	1997	2001	0	0	0	64717	65653	66838	64092	68254	66841	71891
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	2002	2006	0	0	0	0	0	0	0	0	66841	71891
Heavy Duty Vehicles	Diesel >32t	Conventional	0	1993	66422	63294	63934	64717	65653	66838	64092	68254	66841	71891
Heavy Duty Vehicles	Diesel >32t	Euro I	1994	1996	66422	63294	63934	64717	65653	66838	64092	68254	66841	71891
Heavy Duty Vehicles	Diesel >32t	Euro II	1997	2001	0	0	0	64717	65653	66838	64092	68254	66841	71891
Heavy Duty Vehicles	Diesel >32t	Euro III	2002	2006	0	0	0	0	0	0	0	0	66841	71891

Sector	Subsector	Tech	FYear	LYear	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Buses	Urban Buses	Conventional	0	1993	108850	103224	103953	103313	102311	99871	95765	93590	93770	100911
Buses	Urban Buses	Euro I	1994	1996	108850	103224	103953	103313	102311	99871	95765	93590	93770	100911
Buses	Urban Buses	Euro II	1997	2001	0	0	0	103313	102311	99871	95765	93590	93770	100911
Buses	Urban Buses	Euro III	2002	2006	0	0	0	0	0	0	0	0	93770	100911
Buses	Coaches	Conventional	0	1993	108850	90022	85021	83545	82509	81021	77850	76121	76267	82075
Buses	Coaches	Euro I	1994	1996	108850	90022	85021	83545	82509	81021	77850	76121	76267	82075
Buses	Coaches	Euro II	1997	2001	0	0	0	83545	82509	81021	77850	76121	76267	82075
Buses	Coaches	Euro III	2002	2006	0	0	0	0	0	0	0	0	76267	82075
Mopeds	<50 cm³	Conventional	0	1999	2315	2211	2188	2141	2151	1794	1614	1175	1306	1302
Mopeds	<50 cm³	97/24/EC I	2000	2002	0	0	0	0	0	0	1614	1175	1306	1302
Mopeds	<50 cm³	97/24/EC II	2003	9999	0	0	0	0	0	0	0	0	0	1302
Motorcycles	2-stroke >50 cm³	Conventional	0	1999	6584	6279	6220	6106	6168	5971	6029	5563	6228	6212
Motorcycles	2-stroke >50 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke <250 cm³	Conventional	0	1999	6584	6279	6220	6106	6168	5971	6029	5563	6228	6212
Motorcycles	4-stroke <250 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	6029	5563	6228	6212
Motorcycles	4-stroke 250 - 750 cm³	Conventional	0	1999	6584	6279	6220	6106	6168	5971	6029	5563	6228	6212
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	6029	5563	6228	6212
Motorcycles	4-stroke >750 cm³	Conventional	0	1999	6584	6279	6220	6106	6168	5971	6029	5563	6228	6212
Motorcycles	4-stroke >750 cm³	97/24/EC	2000	2003	0	0	0	0	0	0	6029	5563	6228	6212

Annex 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 - 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 >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	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	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	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	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
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 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 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 >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
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	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
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
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 - 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 >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

Sector	Subsector	Tech	COu	COr	COh	NOxu	NOxr	NOxh	NMVOCu	NMVOCr	NMVOCh
Passenger Cars	Gasoline <1.4 l	PRE ECE	27.505	19.333	15.520	1.849	2.062	2.023	2.262	1.568	1.221
Passenger Cars	Gasoline <1.4 l	ECE 15/00-01	18.966	14.480	18.620	1.849	2.062	2.023	1.770	1.227	1.095
Passenger Cars	Gasoline <1.4 l	ECE 15/02	15.859	8.200	8.260	1.619	2.102	2.909	1.757	1.032	0.924
Passenger Cars	Gasoline <1.4 l	ECE 15/03	16.752	8.793	7.620	1.680	2.253	3.276	1.757	1.032	0.924
Passenger Cars	Gasoline <1.4 l	ECE 15/04	9.087	4.956	4.292	1.691	2.089	2.662	1.388	0.866	0.672
Passenger Cars	Gasoline <1.4 l	Euro I	1.898	0.557	3.176	0.314	0.356	0.593	0.175	0.064	0.082
Passenger Cars	Gasoline 1.4 - 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 >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	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	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	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	COr	COh	NOxu	NOxr	NOxh	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	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
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 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 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 >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
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	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
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 - 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 >750 cm^3	Conventional	14.880	18.030	24.300	0.148	0.266	0.392	2.320	1.410	0.990

Annex 4: Reduction factors for road transport emission factors

Sector	Subsector	Tech	COuR	COrR	COhR	NOxuR	NOxrR	NOxhR	VOCuR	VOCrR	VOChR
Passenger Cars	Gasoline <1.4 l	Euro I	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline <1.4 l	Euro II	32	32	32	64	64	64	79	79	79
Passenger Cars	Gasoline <1.4 l	Euro III	44	44	44	76	76	76	85	85	85
Passenger Cars	Gasoline <1.4 l	Euro IV	66	66	66	87	87	87	97	97	97
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro I	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro II	32	32	32	64	64	64	79	79	79
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro III	44	44	44	76	76	76	86	86	86
Passenger Cars	Gasoline 1.4 - 2.0 l	Euro IV	66	66	66	87	87	87	97	97	97
Passenger Cars	Gasoline >2.0 l	Euro I	0	0	0	0	0	0	0	0	0
Passenger Cars	Gasoline >2.0 l	Euro II	32	32	32	64	64	64	76	76	76
Passenger Cars	Gasoline >2.0 l	Euro III	44	44	44	76	76	76	84	84	84
Passenger Cars	Gasoline >2.0 l	Euro IV	65	65	65	87	87	87	95	95	95
Passenger Cars	Diesel <2.0 l	Euro I	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Euro II	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel <2.0 l	Euro III	0	0	0	23	23	23	15	15	15
Passenger Cars	Diesel <2.0 l	Euro IV	0	0	0	47	47	47	31	31	31
Passenger Cars	Diesel >2.0 l	Euro I	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel >2.0 l	Euro II	0	0	0	0	0	0	0	0	0
Passenger Cars	Diesel >2.0 l	Euro III	0	0	0	23	23	23	15	15	15
Passenger Cars	Diesel >2.0 l	Euro IV	0	0	0	47	47	47	31	31	31
Light Duty Vehicles	Gasoline <3.5t	Euro I	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Gasoline <3.5t	Euro II	39	39	39	66	66	66	76	76	76
Light Duty Vehicles	Gasoline <3.5t	Euro III	48	48	48	79	79	79	86	86	86
Light Duty Vehicles	Gasoline <3.5t	Euro IV	72	72	72	90	90	90	94	94	94
Light Duty Vehicles	Diesel <3.5 t	Euro I	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Euro II	0	0	0	0	0	0	0	0	0
Light Duty Vehicles	Diesel <3.5 t	Euro III	18	18	18	16	16	16	38	38	38
Light Duty Vehicles	Diesel <3.5 t	Euro IV	35	35	35	32	32	32	77	77	77

Sector	Subsector	Tech	COuR	COrR	COhR	NOxuR	NOxrR	NOxhR	VOCuR	VOCrR	VOChR
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Conventional	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro I	50	40	45	30	30	10	25	25	25
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro II	60	45	50	50	45	35	30	30	30
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro III	72	61.5	65	65	61.5	54.5	51	51	51
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro IV	79.6	71.9	74.5	75.5	73.1	68.2	65.7	65.7	65.7
Heavy Duty Vehicles	Diesel 3.5 - 7.5 t	Euro V	79.6	71.9	74.5	86	84.6	81.8	65.7	65.7	65.7
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Conventional	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro I	50	40	45	30	30	10	25	25	25
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro II	60	45	50	50	45	35	30	30	30
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro III	72	61.5	65	65	61.5	54.5	51	51	51
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro IV	79.6	71.9	74.5	75.5	73.1	68.2	65.7	65.7	65.7
Heavy Duty Vehicles	Diesel 7.5 - 16 t	Euro V	79.6	71.9	74.5	86	84.6	81.8	65.7	65.7	65.7
Heavy Duty Vehicles	Diesel 16 - 32 t	Conventional	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro I	45	40	35	45	40	45	50	35	25
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro II	55	50	35	60	55	55	55	40	35
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro III	68.5	65	54.5	72	68.5	68.5	68.5	58	54.5
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro IV	77	74.5	66.8	80.4	78	78	78	70.6	68.2
Heavy Duty Vehicles	Diesel 16 - 32 t	Euro V	77	74.5	66.8	88.8	87.4	87.4	78	70.6	68.2
Heavy Duty Vehicles	Diesel >32t	Conventional	0	0	0	0	0	0	0	0	0
Heavy Duty Vehicles	Diesel >32t	Euro I	45	40	35	45	40	45	50	35	25
Heavy Duty Vehicles	Diesel >32t	Euro II	55	50	35	60	55	55	55	40	35
Heavy Duty Vehicles	Diesel >32t	Euro III	68.5	65	54.5	72	68.5	68.5	68.5	58	54.5
Heavy Duty Vehicles	Diesel >32t	Euro IV	77	74.5	66.8	80.4	78	78	78	70.6	68.2
Heavy Duty Vehicles	Diesel >32t	Euro V	77	74.5	66.8	88.8	87.4	87.4	78	70.6	68.2
Buses	Urban Buses	Conventional	0	0	0	0	0	0	0	0	0
Buses	Urban Buses	Euro I	50	40	45	30	30	10	25	25	25
Buses	Urban Buses	Euro II	60	45	50	50	45	35	30	30	30
Buses	Urban Buses	Euro III	72	61.5	65	65	61.5	54.5	51	51	51
Buses	Urban Buses	Euro IV	79.6	71.9	74.5	75.5	73.1	68.2	65.7	65.7	65.7
Buses	Urban Buses	Euro V	79.6	71.9	74.5	86	84.6	81.8	65.7	65.7	65.7
Buses	Coaches	Conventional	0	0	0	0	0	0	0	0	0
Buses	Coaches	Euro I	45	40	35	45	40	45	50	35	25
Buses	Coaches	Euro II	55	50	35	60	55	55	55	40	35
Buses	Coaches	Euro III	68.5	65	54.5	72	68.5	68.5	68.5	58	54.5
Buses	Coaches	Euro IV	77	74.5	66.8	80.4	78	78	78	70.6	68.2
Buses	Coaches	Euro V	77	74.5	66.8	88.8	87.4	87.4	78	70.6	68.2

Sector	Subsector	Tech	COuR	COrR	COhR	NOxuR	NOxrR	NOxhR	VOCuR	VOCrR	VOChR
Mopeds	<50 cm³	Conventional	0	0	0	0	0	0	0	0	0
Mopeds	<50 cm³	97/24/EC Stage I	50	50	100	0	0	100	55	55	100
Mopeds	<50 cm³	97/24/EC Stage II	90	90	100	67	67	100	78	78	100
Motorcycles	2-stroke >50 cm³	97/24/EC	0	0	0	0	0	0	0	0	0
Motorcycles	2-stroke >50 cm³	97/24/EC Stage II (proposal)	31	31	31	-200	-200	-200	70	70	70
Motorcycles	2-stroke >50 cm³	97/24/EC Stage III (proposal)	75	75	75	-50	-50	-50	80	80	80
Motorcycles	4-stroke <250 cm³	97/24/EC	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke <250 cm³	97/24/EC Stage II (proposal)	58	58	58	0	0	0	67	67	67
Motorcycles	4-stroke <250 cm³	97/24/EC Stage III (proposal)	85	85	85	50	50	50	90	90	90
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC Stage II (proposal)	58	58	58	0	0	0	67	67	67
Motorcycles	4-stroke 250 - 750 cm³	97/24/EC Stage III (proposal)	85	85	85	50	50	50	90	90	90
Motorcycles	4-stroke >750 cm³	97/24/EC	0	0	0	0	0	0	0	0	0
Motorcycles	4-stroke >750 cm³	97/24/EC Stage II (proposal)	58	58	58	0	0	0	67	67	67
Motorcycles	4-stroke >750 cm³	97/24/EC Stage III (proposal)	85	85	85	50	50	50	90	90	90

Annex 5: Fuel use factors (MJ/km) and emission factors (g/km)

Category	Year	FCu (MJ)	FCr (MJ)	FCh (MJ)	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh	SO2u	SO2r	SO2h	NOxu	NOxr	NOxh
Passenger Cars	1985	3.229	2.099	2.408	236	153	176	0.153	0.027	0.024	0.007	0.007	0.007	0.070	0.043	0.053	1.856	2.195	2.802
Passenger Cars	1986	3.197	2.090	2.390	234	153	175	0.151	0.027	0.024	0.007	0.007	0.007	0.045	0.028	0.034	1.850	2.195	2.812
Passenger Cars	1987	3.185	2.079	2.369	233	152	173	0.152	0.027	0.024	0.007	0.007	0.007	0.046	0.028	0.034	1.851	2.192	2.809
Passenger Cars	1988	3.116	2.068	2.345	228	151	171	0.144	0.027	0.024	0.007	0.007	0.007	0.045	0.028	0.034	1.832	2.187	2.808
Passenger Cars	1989	3.088	2.063	2.335	226	151	171	0.141	0.027	0.024	0.007	0.007	0.007	0.032	0.020	0.024	1.823	2.185	2.813
Passenger Cars	1990	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	1.791	2.142	2.763
Passenger Cars	1991	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	1.718	2.014	2.609
Passenger Cars	1992	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	1.649	1.901	2.475
Passenger Cars	1993	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	1.595	1.798	2.356
Passenger Cars	1994	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	1.488	1.624	2.149
Passenger Cars	1995	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	1.430	1.495	1.993
Passenger Cars	1996	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	1.393	1.395	1.875
Passenger Cars	1997	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	1.283	1.240	1.694
Passenger Cars	1998	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	1.197	1.129	1.549
Passenger Cars	1999	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	1.102	0.995	1.369
Passenger Cars	2000	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	1.027	0.893	1.232
Passenger Cars	2001	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	0.958	0.796	1.107
Passenger Cars	2002	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	0.907	0.749	1.041
Passenger Cars	2003	3.216	1.853	2.071	235	136	152	0.161	0.011	0.011	0.042	0.016	0.029	0.007	0.004	0.005	0.838	0.669	0.931
Light Duty Vehicles	1985	3.927	2.790	3.000	290	206	222	0.045	0.010	0.008	0.016	0.016	0.016	0.781	0.572	0.626	2.020	1.146	1.174
Light Duty Vehicles	1986	3.907	2.792	3.006	289	206	222	0.042	0.009	0.007	0.016	0.016	0.016	0.473	0.348	0.380	2.002	1.123	1.148
Light Duty Vehicles	1987	3.917	2.791	3.004	289	206	222	0.043	0.009	0.008	0.016	0.016	0.016	0.473	0.347	0.379	2.010	1.128	1.154
Light Duty Vehicles	1988	3.869	2.791	3.003	286	206	222	0.041	0.009	0.008	0.016	0.016	0.016	0.466	0.346	0.378	1.981	1.133	1.159
Light Duty Vehicles	1989	3.847	2.792	3.007	284	206	222	0.039	0.009	0.007	0.016	0.016	0.016	0.312	0.233	0.254	1.963	1.117	1.142
Light Duty Vehicles	1990	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	1.960	1.117	1.141
Light Duty Vehicles	1991	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	1.979	1.118	1.143
Light Duty Vehicles	1992	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	1.981	1.138	1.165
Light Duty Vehicles	1993	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	2.004	1.147	1.176
Light Duty Vehicles	1994	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	2.006	1.135	1.162
Light Duty Vehicles	1995	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	1.945	1.115	1.144
Light Duty Vehicles	1996	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	1.907	1.091	1.121
Light Duty Vehicles	1997	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	1.811	1.064	1.094
Light Duty Vehicles	1998	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	1.735	1.050	1.082

Light Duty Vehicles	1999	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	1.688	1.031	1.064
Light Duty Vehicles	2000	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	1.629	1.018	1.052
Light Duty Vehicles	2001	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	1.593	0.998	1.032
Light Duty Vehicles	2002	4.166	2.916	3.134	308	215	232	0.035	0.008	0.007	0.021	0.018	0.020	0.010	0.007	0.007	1.657	1.073	1.113
Category	Year	FCu (MJ)	FCr (MJ)	FCh (MJ)	CO2u	CO2r	CO2h	CH4u	CH4r	CH4h	N2Ou	N2Or	N2Oh	SO2u	SO2r	SO2h	NOxu	NOxr	NOxh
Light Duty Vehicles	2003	4.633	3.235	3.481	342	239	257	0.035	0.008	0.007	0.024	0.020	0.022	0.011	0.008	0.008	1.776	1.158	1.202
Heavy Duty Vehicles	1985	12.039	9.738	10.290	891	721	761	0.152	0.067	0.063	0.030	0.030	0.030	2.814	2.277	2.408	12.461	9.226	8.535
Heavy Duty Vehicles	1986	12.030	9.737	10.294	890	720	762	0.152	0.067	0.063	0.030	0.030	0.030	1.687	1.366	1.445	12.445	9.220	8.535
Heavy Duty Vehicles	1987	12.029	9.736	10.294	890	720	762	0.152	0.067	0.063	0.030	0.030	0.030	1.687	1.366	1.445	12.443	9.219	8.535
Heavy Duty Vehicles	1988	12.037	9.738	10.291	891	721	762	0.152	0.067	0.063	0.030	0.030	0.030	1.688	1.367	1.445	12.457	9.225	8.535
Heavy Duty Vehicles	1989	12.037	9.738	10.291	891	721	762	0.152	0.067	0.063	0.030	0.030	0.030	1.126	0.911	0.963	12.458	9.225	8.536
Heavy Duty Vehicles	1990	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	12.379	9.166	8.502
Heavy Duty Vehicles	1991	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	12.423	9.174	8.460
Heavy Duty Vehicles	1992	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	12.435	9.145	8.456
Heavy Duty Vehicles	1993	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	12.272	9.212	8.433
Heavy Duty Vehicles	1994	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	11.939	8.820	8.092
Heavy Duty Vehicles	1995	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	11.490	8.527	7.722
Heavy Duty Vehicles	1996	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	11.123	8.241	7.455
Heavy Duty Vehicles	1997	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	10.798	8.035	7.206
Heavy Duty Vehicles	1998	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	10.374	7.747	6.917
Heavy Duty Vehicles	1999	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	10.019	7.524	6.684
Heavy Duty Vehicles	2000	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	9.598	7.227	6.410
Heavy Duty Vehicles	2001	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	9.526	7.161	6.252
Heavy Duty Vehicles	2002	13.930	11.321	11.552	1031	838	855	0.124	0.060	0.056	0.033	0.033	0.033	0.033	0.027	0.027	9.669	7.332	6.400
Heavy Duty Vehicles	2003	15.372	12.568	12.875	1137	930	953	0.130	0.063	0.059	0.036	0.036	0.037	0.036	0.029	0.030	10.055	7.654	6.686
2-wheelers	1985	1.159	1.230	1.578	85	90	115	0.211	0.117	0.193	0.001	0.001	0.002	0.003	0.003	0.004	0.058	0.151	0.340
2-wheelers	1986	1.163	1.235	1.578	85	90	115	0.210	0.121	0.193	0.001	0.001	0.002	0.003	0.003	0.004	0.060	0.155	0.340
2-wheelers	1987	1.166	1.238	1.578	85	90	115	0.210	0.124	0.193	0.001	0.001	0.002	0.003	0.003	0.004	0.061	0.158	0.340
2-wheelers	1988	1.168	1.241	1.578	85	91	115	0.210	0.126	0.192	0.001	0.001	0.002	0.003	0.003	0.004	0.062	0.160	0.340
2-wheelers	1989	1.170	1.243	1.578	85	91	115	0.210	0.128	0.193	0.001	0.001	0.002	0.003	0.003	0.004	0.063	0.162	0.340
2-wheelers	1990	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	0.064	0.164	0.340
2-wheelers	1991	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	0.068	0.161	0.340
2-wheelers	1992	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	0.066	0.171	0.340
2-wheelers	1993	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	0.071	0.167	0.340
2-wheelers	1994	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	0.070	0.175	0.340
2-wheelers	1995	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	0.068	0.171	0.340
2-wheelers	1996	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	0.069	0.173	0.340

2-wheelers	1997	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	0.069	0.174	0.340
2-wheelers	1998	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	0.069	0.174	0.340
2-wheelers	1999	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	0.073	0.180	0.340
2-wheelers	2000	1.266	1.328	1.640	92	97	120	0.215	0.207	0.201	0.002	0.002	0.002	0.003	0.003	0.004	0.083	0.197	0.357
2-wheelers	2001	1.330	1.380	1.685	97	101	123	0.220	0.212	0.207	0.002	0.002	0.002	0.003	0.003	0.004	0.095	0.215	0.371
2-wheelers	2002	1.373	1.407	1.705	100	103	124	0.226	0.216	0.210	0.002	0.002	0.002	0.003	0.003	0.004	0.101	0.224	0.378
2-wheelers	2003	1.407	1.440	1.742	103	105	127	0.240	0.225	0.215	0.002	0.002	0.002	0.003	0.003	0.004	0.107	0.234	0.390

Category	Year	NMVOCu (exh)	NMVOCr (exh)	NMVOCh (exh)	NMVOCu (tot)	NMVOCr (tot)	NMVOCh (tot)	COu	COr	COh
Passenger Cars	1985	3.046	1.051	0.926	4.928	1.441	1.001	36.756	10.183	10.658
Passenger Cars	1986	2.947	1.029	0.901	4.837	1.421	0.977	34.663	9.688	10.036
Passenger Cars	1987	2.907	1.006	0.873	4.775	1.394	0.947	33.221	9.125	9.376
Passenger Cars	1988	2.686	0.976	0.835	4.625	1.378	0.913	29.040	8.378	8.477
Passenger Cars	1989	2.593	0.958	0.814	4.554	1.364	0.892	27.344	7.992	7.972
Passenger Cars	1990	2.527	0.929	0.787	4.440	1.325	0.863	26.382	7.625	7.554
Passenger Cars	1991	2.520	0.864	0.732	4.313	1.219	0.802	26.666	7.061	7.065
Passenger Cars	1992	2.416	0.804	0.681	4.195	1.139	0.738	25.631	6.538	6.663
Passenger Cars	1993	2.402	0.746	0.633	3.990	1.045	0.684	25.790	6.025	6.323
Passenger Cars	1994	2.200	0.654	0.555	3.671	0.919	0.601	23.663	5.243	5.741
Passenger Cars	1995	2.157	0.584	0.497	3.526	0.817	0.533	23.607	4.701	5.507
Passenger Cars	1996	2.176	0.526	0.449	3.393	0.731	0.477	24.352	4.267	5.365
Passenger Cars	1997	1.835	0.435	0.376	2.896	0.614	0.400	20.485	3.464	4.975
Passenger Cars	1998	1.619	0.382	0.329	2.552	0.539	0.350	18.258	3.057	4.674
Passenger Cars	1999	1.477	0.322	0.277	2.270	0.456	0.295	17.050	2.617	4.306
Passenger Cars	2000	1.335	0.277	0.238	1.868	0.367	0.250	15.805	2.309	4.104
Passenger Cars	2001	1.261	0.234	0.203	1.695	0.307	0.213	15.723	2.064	4.048
Passenger Cars	2002	1.119	0.213	0.185	1.524	0.282	0.194	14.127	1.911	3.885
Passenger Cars	2003	1.031	0.182	0.158	1.369	0.239	0.166	13.527	1.694	3.631
Light Duty Vehicles	1985	0.637	0.179	0.139	0.875	0.225	0.149	5.929	1.684	1.904
Light Duty Vehicles	1986	0.597	0.173	0.136	0.818	0.216	0.145	5.515	1.633	1.840
Light Duty Vehicles	1987	0.610	0.174	0.137	0.833	0.218	0.146	5.647	1.645	1.855
Light Duty Vehicles	1988	0.581	0.176	0.137	0.816	0.221	0.147	5.389	1.655	1.867
Light Duty Vehicles	1989	0.549	0.172	0.135	0.775	0.215	0.145	5.077	1.621	1.824
Light Duty Vehicles	1990	0.546	0.171	0.135	0.771	0.215	0.145	5.044	1.620	1.823
Light Duty Vehicles	1991	0.568	0.172	0.135	0.790	0.215	0.145	5.242	1.622	1.826

Light Duty Vehicles	1992	0.586	0.177	0.138	0.833	0.224	0.148	5.453	1.666	1.881
Light Duty Vehicles	1993	0.620	0.179	0.140	0.865	0.226	0.149	5.785	1.688	1.908
Light Duty Vehicles	1994	0.618	0.176	0.138	0.890	0.220	0.146	5.767	1.661	1.874
Light Duty Vehicles	1995	0.605	0.170	0.134	0.856	0.210	0.142	5.616	1.553	1.758
Light Duty Vehicles	1996	0.612	0.163	0.130	0.836	0.197	0.136	5.646	1.441	1.636
Light Duty Vehicles	1997	0.543	0.154	0.125	0.745	0.185	0.130	4.957	1.317	1.500
Light Duty Vehicles	1998	0.507	0.149	0.122	0.690	0.177	0.127	4.638	1.232	1.410
Light Duty Vehicles	1999	0.487	0.142	0.118	0.647	0.167	0.122	4.399	1.137	1.307
Light Duty Vehicles	2000	0.459	0.137	0.115	0.572	0.155	0.118	4.159	1.064	1.229
Light Duty Vehicles	2001	0.442	0.130	0.111	0.533	0.144	0.113	3.903	0.964	1.119
Light Duty Vehicles	2002	0.448	0.135	0.116	0.540	0.150	0.118	4.048	0.982	1.150
Light Duty Vehicles	2003	0.461	0.139	0.121	0.541	0.151	0.123	4.026	0.969	1.140

Category	Year	NMVOCu (exh)	NMVOCr (exh)	NMVOCh (exh)	NMVOCu (tot)	NMVOCr (tot)	NMVOCh (tot)	COu	COr	COh
Heavy Duty Vehicles	1985	1.528	1.007	0.792	1.528	1.007	0.792	3.717	2.417	1.861
Heavy Duty Vehicles	1986	1.529	1.007	0.791	1.529	1.007	0.791	3.698	2.405	1.855
Heavy Duty Vehicles	1987	1.529	1.008	0.791	1.529	1.008	0.791	3.701	2.408	1.856
Heavy Duty Vehicles	1988	1.528	1.007	0.791	1.528	1.007	0.791	3.708	2.411	1.857
Heavy Duty Vehicles	1989	1.527	1.006	0.791	1.527	1.006	0.791	3.699	2.404	1.853
Heavy Duty Vehicles	1990	1.527	1.007	0.792	1.527	1.007	0.792	3.707	2.411	1.857
Heavy Duty Vehicles	1991	1.532	1.007	0.792	1.532	1.007	0.792	3.687	2.414	1.862
Heavy Duty Vehicles	1992	1.532	1.011	0.792	1.532	1.011	0.792	3.700	2.413	1.866
Heavy Duty Vehicles	1993	1.538	1.008	0.792	1.538	1.008	0.792	3.707	2.420	1.872
Heavy Duty Vehicles	1994	1.475	0.986	0.775	1.475	0.986	0.775	3.588	2.323	1.814
Heavy Duty Vehicles	1995	1.439	0.964	0.761	1.439	0.964	0.761	3.411	2.225	1.757
Heavy Duty Vehicles	1996	1.396	0.938	0.745	1.396	0.938	0.745	3.260	2.156	1.704
Heavy Duty Vehicles	1997	1.331	0.903	0.721	1.331	0.903	0.721	3.070	2.044	1.632
Heavy Duty Vehicles	1998	1.283	0.876	0.700	1.283	0.876	0.700	2.941	1.970	1.586
Heavy Duty Vehicles	1999	1.234	0.849	0.680	1.234	0.849	0.680	2.795	1.885	1.535
Heavy Duty Vehicles	2000	1.193	0.826	0.663	1.193	0.826	0.663	2.686	1.824	1.500
Heavy Duty Vehicles	2001	1.148	0.803	0.645	1.148	0.803	0.645	2.625	1.770	1.467
Heavy Duty Vehicles	2002	1.171	0.830	0.671	1.171	0.830	0.671	2.685	1.832	1.537
Heavy Duty Vehicles	2003	1.222	0.874	0.710	1.222	0.874	0.710	2.789	1.917	1.625
2-wheelers	1985	6.932	4.753	2.011	7.427	5.023	2.040	16.514	19.368	27.917
2-wheelers	1986	6.808	4.598	2.011	7.322	4.870	2.040	16.616	19.528	27.917

2-wheelers	1987	6.729	4.504	2.011	7.242	4.770	2.040	16.680	19.624	27.917
2-wheelers	1988	6.666	4.431	2.011	7.210	4.709	2.041	16.732	19.700	27.917
2-wheelers	1989	6.606	4.364	2.011	7.171	4.649	2.042	16.781	19.769	27.917
2-wheelers	1990	6.532	4.283	2.011	7.095	4.562	2.041	16.842	19.852	27.917
2-wheelers	1991	6.249	4.379	2.011	6.770	4.669	2.047	17.073	19.753	27.917
2-wheelers	1992	6.372	4.042	2.011	6.937	4.303	2.045	16.972	20.099	27.917
2-wheelers	1993	6.033	4.187	2.011	6.538	4.462	2.048	17.250	19.950	27.917
2-wheelers	1994	6.097	3.880	2.011	6.663	4.139	2.047	17.197	20.267	27.917
2-wheelers	1995	6.271	4.023	2.011	6.850	4.295	2.038	17.055	20.119	27.917
2-wheelers	1996	6.184	3.960	2.011	6.726	4.212	2.046	17.126	20.184	27.917
2-wheelers	1997	6.153	3.931	2.011	6.729	4.198	2.048	17.152	20.214	27.917
2-wheelers	1998	6.145	3.924	2.011	6.720	4.189	2.047	17.158	20.221	27.917
2-wheelers	1999	5.895	3.704	2.011	6.509	3.974	2.048	17.363	20.448	27.917
2-wheelers	2000	5.868	3.574	2.066	6.412	3.801	2.096	18.167	21.197	28.604
2-wheelers	2001	5.542	3.318	2.077	6.165	3.558	2.109	18.904	21.824	28.956
2-wheelers	2002	5.505	3.238	2.044	6.158	3.482	2.075	19.434	22.206	29.326
2-wheelers	2003	5.375	3.151	2.034	6.050	3.397	2.066	19.655	22.492	29.740

Annex 6: Fuel use (GJ) and emissions (tons) per vehicle category and as totals

Year	Sector	FC (GJ)	SO2	NOx	NMVOC	CH4	CO	CO2	N2O
1985	Passenger Cars	65998226	1413	53825	71922	2007	540484	4823200	179
1986	Passenger Cars	66376423	927	54512	71599	2007	517508	4850992	182
1987	Passenger Cars	66571313	943	54907	71062	2035	497147	4865325	184
1988	Passenger Cars	67036985	943	55829	70652	1997	449763	4899318	187
1989	Passenger Cars	66072647	677	55255	69046	1947	421127	4828973	187
1990	Passenger Cars	69608254	687	57332	71086	2079	427990	5087105	214
1991	Passenger Cars	73816548	709	57836	71423	2334	443231	5394444	280
1992	Passenger Cars	77348442	526	58614	70458	2467	434504	5652313	347
1993	Passenger Cars	79376296	307	57397	68127	2719	438753	5800343	407
1994	Passenger Cars	82258416	318	55069	63930	2876	410796	6010935	511
1995	Passenger Cars	83450719	329	52947	59334	3038	396227	6098344	587
1996	Passenger Cars	84286667	335	50991	55425	3288	394948	6159584	651
1997	Passenger Cars	86483699	344	48026	49139	3139	347652	6320175	761
1998	Passenger Cars	88522087	356	45484	44559	2975	320454	6469358	833
1999	Passenger Cars	89167631	292	41094	39478	2903	297453	6517606	896
2000	Passenger Cars	88595697	203	37329	32342	2769	274087	6476748	938
2001	Passenger Cars	88434195	203	33750	28703	2751	267408	6465693	981
2002	Passenger Cars	89468068	205	32435	26401	2503	247451	6542849	1013
2003	Passenger Cars	91187389	209	29907	23867	2443	238535	6669849	1063
1985	Light Duty Vehicles	16178208	3275	7434	2378	119	17016	1194974	77
1986	Light Duty Vehicles	19029695	2343	8637	2641	131	18884	1405791	91
1987	Light Duty Vehicles	19959842	2449	9088	2810	140	20160	1474454	95
1988	Light Duty Vehicles	20694140	2535	9422	2897	141	20398	1528662	99
1989	Light Duty Vehicles	21690131	1787	9790	2912	141	20435	1602386	105
1990	Light Duty Vehicles	23115080	1906	10428	3091	149	21687	1707662	112
1991	Light Duty Vehicles	23957024	1974	10830	3248	159	23002	1769846	115
1992	Light Duty Vehicles	23479719	1248	10678	3305	160	23176	1734385	112
1993	Light Duty Vehicles	23450531	481	10731	3389	167	24109	1732124	112
1994	Light Duty Vehicles	24974574	516	11211	3480	167	24458	1844855	120
1995	Light Duty Vehicles	24505598	504	10790	3295	164	23171	1810121	121
1996	Light Duty Vehicles	25221292	519	10851	3235	170	23111	1862973	127
1997	Light Duty Vehicles	25453281	526	10671	2991	159	21012	1880204	132

Year	Sector	FC (GJ)	SO2	NOx	NMVOC	CH4	CO	CO2	N2O
1998	Light Duty Vehicles	24752576	509	10197	2750	151	19304	1828342	132
1999	Light Duty Vehicles	25068712	287	10138	2630	146	18457	1851738	136
2000	Light Duty Vehicles	25282013	59	10060	2401	141	17666	1867429	139
2001	Light Duty Vehicles	25520318	60	9976	2271	135	16600	1885224	143
2002	Light Duty Vehicles	26775092	62	10146	2227	134	16450	1977649	153
2003	Light Duty Vehicles	28467267	66	10453	2145	129	15626	2102906	165
1985	Heavy Duty Vehicles	29651116	6934	28239	3140	260	7555	2194138	84
1986	Heavy Duty Vehicles	32738906	4594	31157	3467	286	8301	2422634	93
1987	Heavy Duty Vehicles	31763074	4457	30226	3365	278	8061	2350423	90
1988	Heavy Duty Vehicles	31224098	4381	29732	3306	273	7936	2310539	88
1989	Heavy Duty Vehicles	32327613	3024	30782	3421	283	8196	2392200	91
1990	Heavy Duty Vehicles	33933165	3174	32300	3614	298	8675	2511006	96
1991	Heavy Duty Vehicles	34424256	3220	32781	3671	301	8792	2547345	98
1992	Heavy Duty Vehicles	33656314	2046	32044	3600	295	8622	2490515	96
1993	Heavy Duty Vehicles	33365322	780	31668	3560	292	8537	2468980	95
1994	Heavy Duty Vehicles	35732489	836	32553	3654	295	8705	2644149	103
1995	Heavy Duty Vehicles	36314627	849	31921	3638	293	8483	2687228	105
1996	Heavy Duty Vehicles	37071644	867	31494	3613	290	8346	2743246	107
1997	Heavy Duty Vehicles	37390997	875	30309	3433	282	7827	2766891	106
1998	Heavy Duty Vehicles	38573775	902	29875	3403	281	7719	2854414	109
1999	Heavy Duty Vehicles	39439479	508	29210	3320	277	7452	2918480	110
2000	Heavy Duty Vehicles	38127592	89	27017	3110	259	6950	2821398	106
2001	Heavy Duty Vehicles	38708387	91	26531	2991	257	6725	2864376	106
2002	Heavy Duty Vehicles	37849451	89	24060	2737	237	6175	2800810	103
2003	Heavy Duty Vehicles	40845625	96	24416	2799	243	6288	3022527	111
1985	2-wheelers	654306	1	56	3446	100	9813	47764	1
1986	2-wheelers	617565	2	55	3164	94	9300	45082	1
1987	2-wheelers	603008	1	55	3031	91	9104	44020	1
1988	2-wheelers	600711	2	55	2986	91	9088	43852	1
1989	2-wheelers	588020	1	55	2889	89	8912	42925	1
1990	2-wheelers	618260	2	59	2984	93	9392	45133	1
1991	2-wheelers	647664	2	59	3092	98	9806	47280	1
1992	2-wheelers	673027	2	65	3136	101	10261	49131	1
1993	2-wheelers	693419	2	65	3175	104	10540	50620	1
1994	2-wheelers	704846	2	70	3139	106	10790	51454	1
1995	2-wheelers	714032	2	73	3210	107	10957	52124	1

1996 2-wheelers	755112	2	74	3420	113	11533	55123	1
1997 2-wheelers	803775	2	79	3632	121	12287	58676	1
1998 2-wheelers	866101	2	86	3905	130	13242	63225	1
1999 2-wheelers	854128	2	88	3655	128	13144	62351	1
2000 2-wheelers	868068	2	95	3411	139	13205	63369	1
2001 2-wheelers	775393	2	91	2744	121	11713	56604	1
2002 2-wheelers	909105	2	110	3096	142	13707	66365	1
2003 2-wheelers	938799	2	116	3050	150	14011	68532	1

Year	Sector	FC (GJ)	SO2	NOx	NMVOC	CH4	CO	CO2	N2O
1985	Total	112481857	11624	89554	80886	2486	574867	8260076	340
1986	Total	118762589	7865	94361	80871	2518	553993	8724499	367
1987	Total	118897236	7850	94276	80268	2544	534472	8734221	370
1988	Total	119555934	7860	95038	79841	2503	487184	8782370	376
1989	Total	120678411	5490	95881	78269	2460	458670	8866485	384
1990	Total	127274759	5769	100118	80774	2620	467745	9350906	423
1991	Total	132845492	5905	101506	81436	2891	484830	9758915	494
1992	Total	135157502	3822	101402	80499	3024	476563	9926345	556
1993	Total	136885568	1571	99862	78250	3283	481940	10052066	615
1994	Total	143670326	1671	98904	74203	3444	454750	10551393	735
1995	Total	144984976	1684	95730	69476	3602	438837	10647817	813
1996	Total	147334715	1723	93410	65693	3862	437939	10820927	886
1997	Total	150131752	1746	89086	59195	3700	388778	11025946	1000
1998	Total	152714538	1769	85642	54617	3536	360719	11215339	1074
1999	Total	154529949	1089	80531	49083	3454	336505	11350175	1143
2000	Total	152873369	353	74501	41264	3308	311907	11228944	1185
2001	Total	153438293	355	70348	36708	3265	302446	11271897	1230
2002	Total	155001716	358	66750	34461	3016	283783	11387673	1270
2003	Total	161439080	373	64892	31861	2964	274460	11863815	1339

Annex 7: COPERT III:DEA statistics fuel use ratios and mileage adjustment factors

Description	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
COPERT III:DEA Gasoline (sales)	0.89	0.88	0.87	0.88	0.86	0.91	0.95	0.99	1.02	1.03	0.98	0.97	0.95	0.95	0.92	0.92	0.84	0.94	0.93
COPERT III:DEA Diesel (sales)	0.67	0.63	0.65	0.65	0.63	0.60	0.58	0.60	0.60	0.57	0.60	0.60	0.60	0.61	0.63	0.65	0.67	0.68	0.64
COPERT III:DEA Gasoline (cons.)	1.12	1.14	1.15	1.13	1.16	1.10	1.06	1.01	0.98	0.97	1.02	1.03	1.05	1.05	1.09	1.09	1.19	1.07	1.07
COPERT III:DEA Diesel (cons.)	1.58	1.70	1.64	1.64	1.71	1.81	1.87	1.81	1.80	1.89	1.80	1.81	1.80	1.78	1.74	1.67	1.63	1.63	1.76
Gasoline mileage factor (sales)	1.07	1.07	1.05	1.01	1.00	0.99	1.01	1.00	0.99	1.00	1.02	1.02	1.04	1.04	1.06	1.07	1.15	1.04	1.05
Diesel mileage factor (sales)	0.67	0.65	0.67	0.67	0.65	0.61	0.60	0.61	0.61	0.59	0.62	0.62	0.62	0.63	0.64	0.66	0.72	0.73	0.71
Gasoline mileage factor (cons.)	0.93	0.94	0.95	0.99	1.00	1.01	0.99	1.00	1.01	1.00	0.98	0.98	0.96	0.96	0.95	0.94	0.87	0.96	0.95
Diesel mileage factor (cons.)	1.58	1.63	1.58	1.58	1.65	1.75	1.81	1.76	1.76	1.84	1.74	1.75	1.74	1.73	1.69	1.65	1.50	1.48	1.54

Annex 8: Activity data. fuel use and emission factors for non-road working machinery and equipment

Diesel

SNAP	Type	No.	Size	LF	Hours	Life time	Stage I	Stage II	NO_X (g/kWh)			NMVOC (g/kWh)			CH_4
			[kW]		[h]	[years]	[year]		Conv.	Stage I	Stage II	Conv.	Stage I	Stage II	[g/kWh
0808	Vibratory plates	3500	6	0.6	300	10			14.36	14.36	14.36	3.82	3.82	3.82	0.05
0808	Refrigerating units (distribution)	3000	8	0.5	1250	6			14.36	14.36	14.36	3.82	3.82	3.82	0.05
0808	Refrigerating units (long distance)	3500	15	0.5	200	7			14.36	14.36	14.36	3.82	3.82	3.82	0.05
0808	Tampers/Land rollers	2800	30	0.45	600	14		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0806	Tractors (agriculture)	5000	25	0.4	50	30		2002	14.36	14.36	8	2.91	2.91	1.5	0.05
0808	Forklifts 0-2 tons (diesel)	700	35	0.27	600	20		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0808	High pressure cleaners (diesel)	50	30	0.8	500	10		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0808	Sweepers (diesel)	200	30	0.4	300	10		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0808	Aerial lifts (diesel)	150	30	0.4	400	10		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0807	Chippers	100	35	0.5	250	10		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0806	Tractors (agriculture)	29000	32.5	0.4	100	30		2002	14.36	14.36	8	2.91	2.91	1.5	0.05
0808	Mini loaders	2800	30	0.5	700	14		2000	14.36	14.36	8	2.91	2.91	1.5	0.05
0808	Tractors (transport. industry)	3000	50	0.4	500	30	2002	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0808	Compressors (diesel)	5000	45	0.5	500	13	1999	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0806	Tractors (agriculture)	66600	50	0.5	300	30	2002	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0808	Generators (diesel)	5000	45	0.5	200	15	1999	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0808	Forklifts 3-5 tons (diesel)	3900	50	0.27	600	20	1999	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0808	Forklifts 2-3 tons (diesel)	2900	45	0.27	600	20	1999	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0808	Excavators/Loaders	4200	50	0.45	700	14	1999	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0806	Self-propelled vehicles	1100	60	0.75	150	15	1999	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0806	Tractors (agriculture)	32000	70	0.5	500	30	2002	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0806	Tractors (machine pool)	5500	70	0.6	800	30	2002	2004	14.36	9.2	7	2.28	1.3	1.3	0.05
0808	Excavators (track type)	2000	110	0.6	1100	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0806	Combines (agriculture)	33700	85	0.75	100	15	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0806	Combines (machine pool)	2000	120	0.75	150	15	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Airport ground activities (medium duty)	350	125	0.5	300	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Forklifts >10 tons (diesel)	200	120	0.27	600	20	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Loaders (track type)	100	100	0.5	1100	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05

0808	Motor graders	100	100	0.4	700	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Excavators (wheel type)	1000	100	0.6	1200	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Airport ground activities (light duty)	500	100	0.5	400	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Asphalt pavers	300	80	0.35	700	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Pumps (diesel)	1000	75	0.5	5	15	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Forklifts 5-10 tons (diesel)	900	75	0.27	600	20	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Wheel loaders	2500	120	0.5	1200	10	1999	2003	14.36	9.2	6	1.67	1.3	1	0.05
0808	Dozers (track type)	250	140	0.5	1100	10	1999	2002	14.36	9.2	6	1.3	1.3	1	0.05
0808	Dump trucks	500	180	0.4	1200	10	1999	2002	14.36	9.2	6	1.3	1.3	1	0.05
0808	Refuse compressors	100	160	0.25	1300	10	1999	2002	14.36	9.2	6	1.3	1.3	1	0.05
0808	Airport ground activities (Heavy duty)	650	175	0.5	200	10	1999	2002	14.36	9.2	6	1.3	1.3	1	0.05

SNAP	Type	N_2O	CO (g/kWh)		
		[g/kWh]	Conv.	Stage I	Stage II
0808	Vibratory plates	0.035	8.38	8.38	8.38
0808	Refrigerating units (distribution)	0.035	8.38	8.38	8.38
0808	Refrigerating units (long distance)	0.035	8.38	8.38	8.38
0808	Tampers/Land rollers	0.035	6.43	6.43	5.5
0806	Tractors (agriculture)	0.035	6.43	6.43	5.5
0808	Forklifts 0-2 tons (diesel)	0.035	6.43	6.43	5.5
0808	High pressure cleaners (diesel)	0.035	6.43	6.43	5.5
0808	Sweepers (diesel)	0.035	6.43	6.43	5.5
0808	Aerial lifts (diesel)	0.035	6.43	6.43	5.5
0807	Chippers	0.035	6.43	6.43	5.5
0806	Tractors (agriculture)	0.035	6.43	6.43	5.5
0808	Mini loaders	0.035	6.43	6.43	5.5
0808	Tractors (transport. industry)	0.035	5.06	5.06	5
0808	Compressors (diesel)	0.035	5.06	5.06	5
0806	Tractors (agriculture)	0.035	5.06	5.06	5
0808	Generators (diesel)	0.035	5.06	5.06	5
0808	Forklifts 3-5 tons (diesel)	0.035	5.06	5.06	5
0808	Forklifts 2-3 tons (diesel)	0.035	5.06	5.06	5
0808	Excavators/Loaders	0.035	5.06	5.06	5
0806	Self-propelled vehicles	0.035	5.06	5.06	5
0806	Tractors (agriculture)	0.035	5.06	5.06	5
0806	Tractors (machine pool)	0.035	5.06	5.06	5
0808	Excavators (track type)	0.035	3.76	3.76	3.76
0806	Combines (agriculture)	0.035	3.76	3.76	3.76
0806	Combines (machine pool)	0.035	3.76	3.76	3.76
0808	Airport ground activities (medium duty)	0.035	3.76	3.76	3.76
0808	Forklifts >10 tons (diesel)	0.035	3.76	3.76	3.76
0808	Loaders (track type)	0.035	3.76	3.76	3.76
0808	Motor graders	0.035	3.76	3.76	3.76
0808	Excavators (wheel type)	0.035	3.76	3.76	3.76
0808	Airport ground activities (light duty)	0.035	3.76	3.76	3.76
0808	Asphalt pavers	0.035	3.76	3.76	3.76

0808	Pumps (diesel)	0.035	3.76	3.76	3.76
0808	Forklifts 5-10 tons (diesel)	0.035	3.76	3.76	3.76
0808	Wheel loaders	0.035	3.76	3.76	3.76
0808	Dozers (track type)	0.035	3	3	3
0808	Dump trucks	0.035	3	3	3
0808	Refuse compressors	0.035	3	3	3
0808	Airport ground activities (Heavy duty)	0.035	3	3	3

Gasoline

SNAP	Type	No.	Size [kW]	LF	Hours [h]	Life time [years]	NO_X [g/kWh]	VOC [g/kWh]	CH_4 [g/kWh]	NMVOC [g/kWh]	CO [g/kWh]	CO_2 [kg/kWh]	N_2O [g/kWh]	FC [g/kWh]	FC [MJ/kWh]
0806	Other (gasoline)	100	5	0.4	50	10	4.0	38	1.8	35.9	700	1.288	0.03	403	17.6
0806	Fodder trucks	11000	8	0.4	200	10	4.0	28	1.4	27.0	550	1.264	0.03	395	17.3
0806	Sweepers	2500	3	0.3	50	10	4.0	52	2.5	49.9	967	1.315	0.03	411	18.0
0806	Scrapers	750	3	0.3	50	10	4.0	52	2.5	49.9	967	1.315	0.03	411	18.0
0806	Bedding machines	1100	3	0.3	50	10	4.0	52	2.5	49.9	967	1.315	0.03	411	18.0
0806	Tractors (agriculture)	20000	30	0.4	50	37	4.1	14	0.7	13.8	367	1.200	0.03	375	16.4
0806	Tractors (agriculture)	10000	30	0.4	100	37	4.1	14	0.7	13.8	367	1.200	0.03	375	16.4
0807	Chain saws (forestry use)	2000	3	0.6	800	2	1.0	383	3.8	379.3	700	1.530	0.01	479	21.0
0808	Other (gasoline)	1000	5	0.5	40	10	4.0	38	1.8	35.9	700	1.288	0.03	403	17.6
0808	Sweepers (gasoline)	500	10	0.4	150	10	4.0	25	1.2	23.8	500	1.253	0.03	392	17.2
0808	Generators (gasoline)	11000	2.5	0.4	80	10	4.0	59	2.8	56.3	1100	1.325	0.03	414	18.1
0808	High pressure cleaners (gasoline)	500	5	0.6	200	10	4.0	38	1.8	35.9	700	1.288	0.03	403	17.6
0808	Cutters	800	4	0.5	50	10	4.0	43	2.1	41.4	800	1.300	0.03	407	17.8
0808	Compressors (gasoline)	500	4	0.35	15	8	4.0	43	2.1	41.4	800	1.300	0.03	407	17.8
0808	Drills	100	3	0.4	10	10	1.0	383	3.8	379.3	700	1.530	0.01	479	21.0
0808	Aerial lifts (gasoline)	50	20	0.4	400	10	4.1	17	0.8	16.6	400	1.219	0.03	381	16.7
0808	Pumps (gasoline)	10000	4	0.4	300	5	4.0	43	2.1	41.4	800	1.300	0.03	407	17.8
0808	Slicers	100	10	0.7	150	10	1.1	251	2.5	248.9	420	1.460	0.01	457	20.0
0808	Rammers	3000	2.5	0.4	80	10	1.0	416	4.1	411.5	780	1.541	0.01	482	21.1
0808	Vibratory plates(gasoline)	2500	4	0.5	200	10	4.0	43	2.1	41.4	800	1.300	0.03	407	17.8
0809	Other (gasoline)	200	2	0.5	20	10	1.0	462	4.6	457.3	900	1.555	0.01	486	21.3
0809	Wood cutters	100	4	0.5	15	10	4.0	43	2.1	41.4	800	1.300	0.03	407	17.8
0809	Shrub clearers	50000	0.8	0.6	15	10	1.0	759	7.5	751.1	1800	1.613	0.01	504	22.1
0809	Chippers	200	10	0.7	100	10	1.1	251	2.5	248.9	420	1.460	0.01	457	20.0
0809	Cultivators	150000	4	0.6	25	10	4.0	43	2.1	41.4	800	1.300	0.03	407	17.8
0809	Hedge cutters	15000	0.6	0.5	10	10	1.0	902	8.9	893.4	2300	1.632	0.01	510	22.4
0809	Garden shredders	500	3	0.7	20	10	1.0	383	3.8	379.3	700	1.530	0.01	479	21.0
0809	Chain saws (public use)	10000	2.5	0.4	150	10	1.0	416	4.1	411.5	780	1.541	0.01	482	21.1
0809	Chain saws (private use)	250000	2	0.3	12	20	1.0	462	4.6	457.3	900	1.555	0.01	486	21.3
0809	Mini tractors	40000	8	0.5	150	10	4.0	28	1.4	27.0	550	1.264	0.03	395	17.3
0809	Lawn movers (small)	800000	2.5	0.4	20	10	4.0	59	2.8	56.3	1100	1.325	0.03	414	18.1
0809	Lawn movers (riders)	35000	6	0.5	125	10	4.0	34	1.6	32.1	633.33	1.279	0.03	400	17.5

0809	Suction machines	300	4	0.5	80	10	1.0	340	3.4	336.8	600	1.513	0.01	473	20.7
0809	Trimmers	60000	0.8	0.5	15	10	1.0	759	7.5	751.1	1800	1.613	0.01	504	22.1

LPG

SNAP	Type	No.	Size [kW]	LF	Hours [h]	NO_x [g/kWh]	VOC [g/kWh]	CH_4 [g/kWh]	NMVOC [g/kWh]	CO [g/kWh]	CO_2 [kg/kWh]	N_2O [g/kWh]	FC [g/kWh]	FC [MJ/kWh]
0808	Forklifts 0-2 tons (LPG)	5300	33	0.27	600	10	14.5	1	13.5	15	1.047	0.05	350	16.1
0808	Forklifts 2-3 tons (LPG)	4800	40	0.27	600	10	14.5	1	13.5	15	1.047	0.05	350	16.1
0808	Forklifts 3-5 tons (LPG)	2100	50	0.27	600	10	14.5	1	13.5	15	1.047	0.05	350	16.1
0808	Forklifts 5-10 tons (LPG)	100	78	0.27	600	10	14.5	1	13.5	15	1.047	0.05	350	16.1

Annex 9: Emission factors and total emissions for 1990 and 2003 in CollectER format

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]	N2O [g/GJ]	NH3 [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	28730	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	7394952	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	183522	1.95	190.36	35.59	7.47	943.80	73	16.76	47.89	0.34
1990	70101	Passenger cars	LPG	Highway driving	1512	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	115355	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	22799974	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	570376	1.95	143.35	42.55	9.25	370.07	73	8.53	53.34	0.37
1990	70102	Passenger cars	LPG	Rural driving	4361	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	181888	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	31532452	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	987315	1.95	163.59	299.31	68.50	3772.36	73	15.24	20.13	0.32
1990	70103	Passenger cars	LPG	Urban driving	6471	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]	NMVOC [g/GJ]	CH4 [g/GJ]	CO [g/GJ]	CO2 [kg/GJ]	N2O [g/GJ]	NH3 [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]	N2O [g/GJ]	NH3 [g/GJ]	TSP [g/GJ]	PM10 [g/GJ]	PM2.5 [g/GJ]
2003	70101	Passenger cars	Diesel	Highway driving	2367693	2.34	281.99	12.33	4.36	99.51	74	13.21	0.49	41.63	41.63	41.63
2003	70101	Passenger cars	Gasoline 2-stroke	Highway driving	561	2.28	288.90	2357.34	10.03	3490.86	73	2.01	0.80	48.15	48.15	48.15
2003	70101	Passenger cars	Gasoline conventional	Highway driving	2431463	2.28	1366.59	331.26	11.46	2554.21	73	2.20	0.88	10.26	10.26	10.26
2003	70101	Passenger cars	Gasoline catalyst	Highway driving	10334218	2.28	271.78	31.14	4.12	1943.10	73	17.19	49.11	0.34	0.34	0.34
2003	70101	Passenger cars	LPG	Highway driving	84	0.00	1151.70	187.09	10.06	3914.25	65	6.04	0.00	10.06	10.06	10.06
2003	70102	Passenger cars	Diesel	Rural driving	5033891	2.34	255.16	20.34	2.61	96.44	74	15.04	0.56	27.73	27.73	27.73
2003	70102	Passenger cars	Gasoline 2-stroke	Rural driving	1575	2.28	352.84	2476.82	13.84	2594.44	73	1.73	0.69	41.51	41.51	41.51
2003	70102	Passenger cars	Gasoline conventional	Rural driving	5327550	2.28	1163.83	450.22	14.17	3088.30	73	2.44	0.97	11.43	11.43	11.43
2003	70102	Passenger cars	Gasoline catalyst	Rural driving	22410273	2.28	193.62	32.10	4.59	580.67	73	8.77	54.83	0.38	0.38	0.38
2003	70102	Passenger cars	LPG	Rural driving	169	0.00	1248.46	305.18	16.91	1146.38	65	7.25	0.00	14.49	14.49	14.49
2003	70103	Passenger cars	Diesel	Urban driving	5771890	2.34	261.28	59.28	2.73	249.89	74	9.98	0.37	55.34	55.34	55.34
2003	70103	Passenger cars	Gasoline 2-stroke	Urban driving	2025	2.28	61.43	3122.63	30.71	4238.59	73	1.02	0.41	24.57	24.57	24.57
2003	70103	Passenger cars	Gasoline conventional	Urban driving	6225773	2.28	632.26	888.22	54.58	8327.42	73	1.59	0.63	11.00	11.00	11.00
2003	70103	Passenger cars	Gasoline catalyst	Urban driving	31280011	2.28	186.65	255.83	58.01	4116.20	73	15.84	20.92	0.33	0.33	0.33
2003	70103	Passenger cars	LPG	Urban driving	213	0.00	613.83	439.70	35.11	1362.11	65	4.37	0.00	11.67	11.67	11.67
2003	70201	Light duty vehicles	Diesel	Highway driving	3535198	2.34	327.68	31.43	1.64	217.92	74	5.99	0.35	56.71	56.71	56.71
2003	70201	Light duty vehicles	Gasoline conventional	Highway driving	122385	2.28	1369.26	170.29	10.11	2987.40	73	2.43	0.81	16.17	16.17	16.17
2003	70201	Light duty vehicles	Gasoline catalyst	Highway driving	294122	2.28	131.37	16.76	2.72	538.34	73	12.03	34.36	0.17	0.17	0.17
2003	70202	Light duty vehicles	Diesel	Rural driving	10770334	2.34	348.00	36.01	1.79	208.60	74	6.56	0.39	53.91	53.91	53.91
2003	70202	Light duty vehicles	Gasoline conventional	Rural driving	432603	2.28	1188.86	262.59	15.25	2316.18	73	2.29	0.76	15.25	15.25	15.25
2003	70202	Light duty vehicles	Gasoline catalyst	Rural driving	1038501	2.28	115.58	22.73	3.11	403.03	73	5.19	32.44	0.16	0.16	0.16
2003	70203	Light duty vehicles	Diesel	Urban driving	10489916	2.34	402.05	64.22	2.56	248.60	74	4.71	0.28	71.38	71.38	71.38
2003	70203	Light duty vehicles	Gasoline conventional	Urban driving	525646	2.28	622.43	711.11	61.78	7581.33	73	1.32	0.44	8.79	8.79	8.79
2003	70203	Light duty vehicles	Gasoline catalyst	Urban driving	1258564	2.28	127.82	137.87	26.13	3235.16	73	9.93	13.11	0.12	0.12	0.12
2003	70301	Heavy duty vehicles	Diesel	Highway driving	11307971	2.34	518.85	54.80	4.59	119.87	74	2.85	0.27	23.19	23.19	23.19
2003	70301	Heavy duty vehicles	Gasoline	Highway driving	9557	2.28	1037.78	474.61	9.69	7610.35	73	0.83	0.28	55.35	55.35	55.35
2003	70302	Heavy duty vehicles	Diesel	Rural driving	17202121	2.34	608.42	68.67	5.01	143.23	74	2.90	0.26	28.18	28.18	28.18

2003	70302	Heavy duty vehicles	Gasoline	Rural driving	19445	2.28	1141.55	820.40	16.74	8371.38	73	0.91	0.30	60.88	60.88	60.88
2003	70303	Heavy duty vehicles	Diesel	Urban driving	12286671	2.34	654.46	78.48	8.46	170.27	74	2.35	0.23	32.70	32.70	32.70
2003	70303	Heavy duty vehicles	Gasoline	Urban driving	19858	2.28	456.62	696.09	14.21	7102.99	73	0.61	0.20	40.59	40.59	40.59
2003	704	Mopeds	Gasoline		211381	2.28	30.24	7571.80	210.99	13069.31	73	1.04	1.04	88.94	88.94	88.94
2003	70501	Motorcycles	Gasoline	Highway driving	119293	2.28	224.08	1167.69	123.67	17073.88	73	1.28	1.28	29.88	29.88	29.88
2003	70502	Motorcycles	Gasoline	Rural driving	277434	2.28	181.40	1408.90	148.13	15988.31	73	1.53	1.53	35.79	35.79	35.79
2003	70503	Motorcycles	Gasoline	Urban driving	330690	2.28	99.81	1879.37	149.77	14442.06	73	1.55	1.55	36.18	36.18	36.18

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]	N2O [g/GJ]	NH3 [g/GJ]	TSP [g/GJ]	PM10 [g/GJ]	PM2.5 [g/GJ]
2003	801	Military	Diesel		585796	2.34	470.25	56.07	4.23	173.84	74	5.25	0.31	41.01	41.01	41.01
2003	801	Military	Jet fuel	< 3000 ft	66524	4.60	250.57	24.94	2.65	229.89	72	2.30	0.00	1.16	1.16	1.16
2003	801	Military	Jet fuel	> 3000 ft	598713	4.60	250.57	24.94	2.65	229.89	72	2.30	0.00	1.16	1.16	1.16
2003	801	Military	Gasoline		3975	2.28	332.39	327.17	31.72	3136.82	73	11.22	29.99	4.43	4.43	4.43
2003	801	Military	Aviation gasoline		6095	4.57	859.00	1242.60	21.90	6972.00	73	2.00	1.60	10.00	10.00	10.00
2003	802	Railways	Diesel		2950035	2.34	1199.93	75.60	2.90	207.09	74	2.04	0.20	40.20	40.20	40.20
2003	803	Inland waterways	Diesel		902453	23.42	1249.33	270.13	4.35	595.20	74	3.05	0.17	164.83	156.59	148.76
2003	803	Inland waterways	Gasoline		1001571	2.28	64.34	10809.58	108.10	18485.08	73	0.52	0.10	23.25	23.25	23.25
2003	80402	National sea traffic	Residual oil		1822827	810.26	1393.60	56.90	1.76	180.90	78	4.90		139.40	132.43	125.81
2003	80402	National sea traffic	Diesel		3827869	93.68	1334.90	54.50	1.69	173.30	74	4.70	0.00	42.15	40.04	38.04
2003	80402	National sea traffic	Kerosene		1079	4.60	50.00	3.00	7.00	20.00	72	2.00	2.00	97.56	92.68	88.05
2003	80402	National sea traffic	LPG		230	0.00	1249.00	384.90	20.30	443.00	65	2.00	0.00	12.44	12.44	12.44
2003	80403	Fishing	Residual oil		84024	810.26	1393.60	56.90	1.76	180.90	78	4.90		139.40	132.43	125.81
2003	80403	Fishing	Diesel		8428083	93.68	1334.90	54.50	1.69	173.30	74	4.70	0.00	42.15	40.04	38.04
2003	80403	Fishing	Kerosene		731	4.60	50.00	3.00	7.00	20.00	72	2.00		97.56	92.68	88.05
2003	80403	Fishing	Gasoline		0	2.28	64.34	10809.60	108.10	18485.10	73	0.52	0.10	23.25	23.25	23.25
2003	80403	Fishing	LPG		20332	0.00	1249.00	384.90	20.30	443.00	65	2.00	0.00	12.44	12.44	12.44
2003	80404	International sea traffic	Residual oil		20461869	1681.38	2127.10	56.90	1.76	180.90	78	4.90		200.50	190.48	180.95
2003	80404	International sea traffic	Diesel		20729767	468.38	2037.50	54.50	1.69	173.30	74	4.70		42.15	40.04	38.04
2003	80501	Air traffic. other airports	Jet fuel	Dom. < 3000 ft	184147	2.30	286.15	18.05	1.92	136.71	72	14.75		1.16	1.16	1.16
2003	80501	Air traffic. other airports	Aviation gasoline		75380	4.57	859.00	1242.60	21.90	6972.00	73	2.00	1.60	10.00	10.00	10.00
2003	80502	Air traffic. other airports	Jet fuel	Int. < 3000 ft	239381	2.30	299.62	15.06	1.60	162.52	72	8.35		1.16	1.16	1.16

2003	80502	Air traffic. other airports	Aviation gasoline		5565	4.57	859.00	1242.60	21.90	6972.00	73	2.00	1.60	10.00	10.00	10.00
2003	80503	Air traffic. other airports	Jet fuel	Dom. > 3000 ft	531959	2.30	276.36	12.96	1.38	120.46	72	2.30		1.16	1.16	1.16
2003	80504	Air traffic. other airports	Jet fuel	Int. > 3000 ft	2378029	2.30	242.75	6.19	0.66	52.29	72	2.30		1.16	1.16	1.16
2003	806	Agriculture	Diesel		15994341	23.42	1219.65	183.26	4.43	423.43	74	3.10	0.18	124.99	118.74	112.87
2003	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
2003	807	Forestry	Diesel		4625	23.42	1033.31	195.44	4.37	508.41	74	3.06	0.17	126.23	119.92	113.98
2003	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
2003	808	Industry	Diesel		8581034	23.42	1131.35	155.37	4.48	391.04	74	3.14	0.18	105.35	100.08	95.13
2003	808	Industry	Gasoline		134440	2.28	48.66	3096.74	119.76	44820.30	73	1.63	0.11	23.25	23.25	23.25
2003	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
2003	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
2003	80501	Air traffic. Copenhagen airport	Jet fuel	Dom. < 3000 ft	229615	2.30	280.58	24.21	2.57	179.28	72	8.44		1.16	1.16	1.16
2003	80501	Air traffic. Copenhagen airport	Aviation gasoline		611	4.57	859.00	1242.60	21.90	6972.00	73	2.00	1.60	10.00	10.00	10.00
2003	80502	Air traffic. Copenhagen airport	Jet fuel	Int. < 3000 ft	2587577	2.30	330.71	36.63	3.89	209.94	72	4.21	0.00	1.16	1.16	1.16
2003	80502	Air traffic. Copenhagen airport	Aviation gasoline		885	4.57	859.00	1242.60	21.90	6972.00	73	2.00	1.60	10.00	10.00	10.00
2003	80503	Air traffic. Copenhagen airport	Jet fuel	Dom. > 3000 ft	890213	2.30	286.82	14.32	1.52	64.93	72	2.30	0.00	1.16	1.16	1.16
2003	80504	Air traffic. Copenhagen airport	Jet fuel	Int. > 3000 ft	25170690	2.30	308.99	11.26	1.20	37.06	72	2.30	0.00	1.16	1.16	1.16

Year	Category	Mode	SNAP ID	SO2 [tons]	NOx [tons]	NMVOC [tons]	CH4 [tons]	CO [tons]	CO2 [ktons]	N2O [tons]	NH3 [tons]	TSP [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		SO2 [tons]	NOx [tons]	NMVOC [tons]	CH4 [tons]	CO [tons]	CO2 [ktons]	N2O [tons]	NH3 [tons]	TSP [tons]	PM10 [tons]	PM2.5 [tons]
2003	Passenger cars	Highway driving	70101	35	6799	1158	81	26529	1107	214	511	127	127	127
2003	Passenger cars	Rural driving	70102	75	11825	3224	192	29956	2398	285	1237	209	209	209
2003	Passenger cars	Urban driving	70103	99	11283	13881	2170	182050	3165	563	661	398	398	398
2003	Light duty vehicles	Highway driving	70201	9	1365	137	8	1294	292	25	11	203	203	203
2003	Light duty vehicles	Rural driving	70202	29	4382	525	29	3667	904	77	38	587	587	587
2003	Light duty vehicles	Urban driving	70203	29	4706	1221	92	10665	907	63	20	754	754	754
2003	Heavy duty vehicles	Highway driving	70301	27	5877	624	52	1428	837	32	3	263	263	263
2003	Heavy duty vehicles	Rural driving	70302	40	10488	1197	86	2627	1274	50	4	486	486	486
2003	Heavy duty vehicles	Urban driving	70303	29	8050	978	104	2233	911	29	3	403	403	403
2003	Mopeds		704	0	6	1601	45	2763	15	0	0	19	19	19
2003	Motorcycles	Highway driving	70501	0	27	139	15	2037	9	0	0	4	4	4
2003	Motorcycles	Rural driving	70502	1	50	391	41	4436	20	0	0	10	10	10
2003	Motorcycles	Urban driving	70503	1	33	621	50	4776	24	1	1	12	12	12
2003	Evaporation		706	0	0	6164	0	0	0	0	0	0	0	0
2003	Military		801	4	449	58	5	310	92	5	0	25	25	25
2003	Railways		802	7	3540	223	9	611	218	6	1	119	119	119
2003	Inland waterways		803	23	1192	11070	112	19051	140	3	0	172	165	158
2003	National sea traffic		80402	1836	7650	312	10	993	426	27	0	416	395	375
2003	Fishing		80403	858	11393	472	15	1485	632	40	0	367	349	332
2003	International sea traffic		80404	44114	85761	2294	71	7294	3130	198	0	4976	4728	4491
2003	Air traffic. Dom. < 3000 ft.		80501	1	182	103	3	596	35	5	0	1	1	1
2003	Air traffic. Int. < 3000 ft.		80502	7	933	106	11	627	204	13	0	3	3	3
2003	Air traffic. Dom. > 3000 ft.		80503	3	402	20	2	122	102	3	0	2	2	2
2003	Air traffic. Int. > 3000 ft.		80504	63	8355	298	32	1057	1984	63	0	32	32	32
2003	Agriculture		806	376	19627	3431	96	18876	1219	51	3	2011	1911	1817
2003	Forestry		807	0	8	1028	10	1899	4	0	0	2	2	2
2003	Industry		808	201	10646	3006	148	10778	742	32	2	926	881	838
2003	Household and gardening		809	3	239	4162	130	47601	82	2	0	26	26	26

Annex 10: Non-exhaust emission factors and total non-exhaust emissions of TSP, PM_{10} and $PM_{2.5}$ in 2002

Year	Source	Category	Mileage [kmkveh]	TSP [mg/km]	PM_{10} [mg/km]	$PM_{2.5}$ [mg/km]	TSP [tons]	PM_{10} [tons]	$PM_{2.5}$ [tons]
2002	Brake wear	Passenger cars	38452219	7.6	7.5	3.0	291	10	4
2002	Brake wear	Light duty vehicles	9309969	11.1	10.9	4.3	104	8	3
2002	Brake wear	Heavy duty vehicles	2823079	28.3	27.7	11.0	80	15	6
2002	Brake wear	Buses	879201	40.4	39.6	15.7	36	3	1
2002	Brake wear	Mopeds	220094	4.4	4.3	1.7	1	0	0
2002	Brake wear	Motorcycles	545287	3.8	3.7	1.5	2	0	0
2002	Road abrasion	Passenger cars	38452219	15.0	7.5	4.1	574	55	29
2002	Road abrasion	Light duty vehicles	9309969	12.2	6.1	3.3	114	9	5
2002	Road abrasion	Heavy duty vehicles	2823079	61.8	30.9	16.7	175	30	16
2002	Road abrasion	Buses	879201	65.1	32.6	17.6	58	4	2
2002	Road abrasion	Mopeds	220094	4.3	2.1	1.2	1	0	0
2002	Road abrasion	Motorcycles	545287	5.4	2.7	1.5	3	0	0
2002	Tyre wear	Passenger cars	38452219	12.4	7.5	5.2	476	42	29
2002	Tyre wear	Light duty vehicles	9309969	16.6	10.0	7.0	156	12	8
2002	Tyre wear	Heavy duty vehicles	2823079	48.5	29.1	20.4	138	25	17
2002	Tyre wear	Buses	879201	25.2	15.1	10.6	22	2	1
2002	Tyre wear	Mopeds	220094	4.6	2.7	1.9	1	0	0
2002	Tyre wear	Motorcycles	545287	5.0	3.0	2.1	3	0	0
2002	Total	Passenger cars					1341	107	63
2002	Total	Light duty vehicles					375	28	16
2002	Total	Heavy duty vehicles					393	69	39
2002	Total	Buses					115	9	4
2002	Total	Mopeds					3	0	0
2002	Total	Motorcycles					8	0	0

Annex 11: Heavy metal emission factors and total emissions for 1990 and 2003 in CollectER format

SNAP ID	Category	Fuel type	Mode	Arsenic [g/GJ]	Cadmium [g/GJ]	Chromium [g/GJ]	Copper [g/GJ]	Mercury [g/GJ]	Nickel [g/GJ]	Lead [g/GJ]	Selenium [g/GJ]	Zinc [g/GJ]
070101	Passenger cars	Diesel	Highway driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070101	Passenger cars	Gasoline 2-stroke	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070101	Passenger cars	Gasoline conventional	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070101	Passenger cars	Gasoline catalyst	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070101	Passenger cars	LPG	Highway driving		0,000000	0,000000	0,000000		0,000000	0,000000	0,000000	0,000000
070102	Passenger cars	Diesel	Rural driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070102	Passenger cars	Gasoline 2-stroke	Rural driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070102	Passenger cars	Gasoline conventional	Rural driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070102	Passenger cars	Gasoline catalyst	Rural driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070102	Passenger cars	LPG	Rural driving		0,000000	0,000000	0,000000		0,000000	0,000000	0,000000	0,000000
070103	Passenger cars	Diesel	Urban driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070103	Passenger cars	Gasoline 2-stroke	Urban driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070103	Passenger cars	Gasoline conventional	Urban driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070103	Passenger cars	Gasoline catalyst	Urban driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070103	Passenger cars	LPG	Urban driving		0,000000	0,000000	0,000000		0,000000	0,000000	0,000000	0,000000
070201	Light duty vehicles	Diesel	Highway driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070201	Light duty vehicles	Gasoline conventional	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070201	Light duty vehicles	Gasoline catalyst	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070202	Light duty vehicles	Diesel	Rural driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070202	Light duty vehicles	Gasoline conventional	Rural driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070202	Light duty vehicles	Gasoline catalyst	Rural driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070203	Light duty vehicles	Diesel	Urban driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070203	Light duty vehicles	Gasoline conventional	Urban driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070203	Light duty vehicles	Gasoline catalyst	Urban driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070301	Heavy duty vehicles	Diesel	Highway driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070301	Heavy duty vehicles	Gasoline	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070302	Heavy duty vehicles	Diesel	Rural driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070302	Heavy duty vehicles	Gasoline	Rural driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070303	Heavy duty vehicles	Diesel	Urban driving		0,000234	0,001171	0,039812		0,001639	0,000000	0,000234	0,023419
070303	Heavy duty vehicles	Gasoline	Urban driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
0704	Mopeds	Gasoline			0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070501	Motorcycles	Gasoline	Highway driving		0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831

070502	Motorcycles	Gasoline	Rural driving	0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831
070503	Motorcycles	Gasoline	Urban driving	0,000228	0,001141	0,038813		0,001598	0,000685	0,000228	0,022831

SNAP ID	Category	Fuel type	Mode	Arsenic [mg/GJ]	Cadmium [mg/GJ]	Chromium [mg/GJ]	Copper [mg/GJ]	Mercury [mg/GJ]	Nickel [mg/GJ]	Lead [mg/GJ]	Selenium [mg/GJ]	Zinc [mg/GJ]
0801	Military	Diesel			0,23	1,17	39,81		1,64		0,23	23,42
0801	Military	Jet fuel	< 3000 ft	0,00	0,23	1,14	38,81	0,00	1,60	0,00	0,23	22,83
0801	Military	Jet fuel	> 3000 ft	0,00	0,23	1,14	38,81	0,00	1,60	0,00	0,23	22,83
0801	Military	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
0801	Military	Aviation gasoline		0,00	0,23	1,14	38,81	0,00	1,60	12785,39	0,23	22,83
0802	Railways	Diesel			0,23	1,17	39,81		1,64		0,23	23,42
0802	Railways	Kerosene										
0802	Railways	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
0803	Inland waterways	Diesel			0,23	1,17	39,81		1,64		0,23	23,42
0803	Inland waterways	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
080402	National sea traffic	Residual oil		12,22	0,73	4,89	12,22	0,49	733,50	4,89	9,78	22,00
080402	National sea traffic	Diesel		1,17	0,23	0,94	1,17	1,17	1,64	2,34	4,68	11,71
080402	National sea traffic	Kerosene										
080402	National sea traffic	LPG										
080403	Fishing	Residual oil		12,22	0,73	4,89	12,22	0,49	733,50	4,89	9,78	22,00
080403	Fishing	Diesel		1,17	0,23	0,94	1,17	1,17	1,64	2,34	4,68	11,71
080403	Fishing	Kerosene										
080403	Fishing	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
080403	Fishing	LPG										
080404	International sea traffic	Residual oil		12,22	0,73	4,89	12,22	0,49	733,50	4,89	9,78	22,00
080404	International sea traffic	Diesel		1,17	0,23	0,94	1,17	1,17	1,64	2,34	4,68	11,71
080501	Air traffic, other airports	Jet fuel	Dom. < 3000 ft		0,23	1,14	38,81		1,60	0,00	0,23	22,83
080501	Air traffic, other airports	Aviation gasoline			0,23	1,14	38,81		1,60	13505,69	0,23	22,83
080502	Air traffic, other airports	Jet fuel	Int. < 3000 ft		0,23	1,14	38,81		1,60	0,00	0,23	22,83
080502	Air traffic, other airports	Aviation gasoline			0,23	1,14	38,81		1,60	13505,69	0,23	22,83
080503	Air traffic, other airports	Jet fuel	Dom. > 3000 ft		0,23	1,14	38,81		1,60	0,00	0,23	22,83
080504	Air traffic, other airports	Jet fuel	Int. > 3000 ft		0,23	1,14	38,81		1,60	0,00	0,23	22,83
0806	Agriculture	Diesel			0,23	1,17	39,81		1,64		0,23	23,42
0806	Agriculture	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
0807	Forestry	Diesel			0,23	1,17	39,81		1,64		0,23	23,42
0807	Forestry	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
0808	Industry	Diesel			0,23	1,17	39,81		1,64		0,23	23,42
0808	Industry	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
0808	Industry	LPG										
0809	Household and gardening	Gasoline			0,23	1,14	38,81		1,60	0,68	0,23	22,83
080501	Air traffic, CPH. airport	Jet fuel	Dom. < 3000 ft		0,23	1,14	38,81		1,60		0,23	22,83
080501	Air traffic, CPH. airport	Aviation gasoline			0,23	1,14	38,81		1,60	13505,69	0,23	22,83
080502	Air traffic, CPH. airport	Jet fuel	Int. < 3000 ft	0,00	0,23	1,14	38,81	0,00	1,60	0,00	0,23	22,83

080502	Air traffic, CPH. airport	Aviation gasoline		0,00	0,23	1,14	38,81	0,00	1,60	13505,69	0,23	22,83
080503	Air traffic, CPH. airport	Jet fuel	Dom. > 3000 ft	0,00	0,23	1,14	38,81	0,00	1,60	0,00	0,23	22,83
080504	Air traffic, CPH. airport	Jet fuel	Int. > 3000 ft	0,00	0,23	1,14	38,81	0,00	1,60	0,00	0,23	22,83

Year	Category	Mode	SNAP ID	Arsenic [kg]	Cadmium [kg]	Chromium [kg]	Copper [kg]	Mercury [kg]	Nickel [kg]	Lead [kg]	Selenium [kg]	Zinc [kg]
1990	Passenger cars	Highway driving	70101	0	2	9	319	0	13	11192	2	187
1990	Passenger cars	Rural driving	70102	0	6	29	976	0	40	34552	6	574
1990	Passenger cars	Urban driving	70103	0	8	40	1372	0	56	48111	8	807
1990	Light duty vehicles	Highway driving	70201	0	1	3	105	0	4	374	1	62
1990	Light duty vehicles	Rural driving	70202	0	2	11	383	0	16	1555	2	225
1990	Light duty vehicles	Urban driving	70203	0	3	14	463	0	19	2269	3	272
1990	Heavy duty vehicles	Highway driving	70301	0	2	9	301	0	12	10	2	177
1990	Heavy duty vehicles	Rural driving	70302	0	3	17	565	0	23	28	3	333
1990	Heavy duty vehicles	Urban driving	70303	0	3	14	485	0	20	33	3	285
1990	Mopeds		704	0	0	0	14	0	1	397	0	8
1990	Motorcycles	Highway driving	70501	0	0	0	3	0	0	101	0	2
1990	Motorcycles	Rural driving	70502	0	0	0	6	0	0	189	0	4
1990	Motorcycles	Urban driving	70503	0	0	0	8	0	0	222	0	4
1990	Evaporation		706	0	0	0	0	0	0	0	0	0
1990	Military		801	0	0	2	64	0	3	64	0	38
1990	Railways		802	0	1	5	160	0	7	0	1	94
1990	Inland waterways		803	0	0	1	36	0	1	546	0	21
1990	National sea traffic		80402	47	3	20	47	5	2616	24	48	111
1990	Fishing		80403	15	3	11	16	12	226	38	50	124
1990	International sea traffic		80404	363	24	150	363	28	20956	167	334	764
1990	Air traffic, Dom. < 3000 ft.		80501	0	0	1	36	0	1	1534	0	21
1990	Air traffic, Int. < 3000 ft.		80502	0	1	3	86	0	4	490	1	50
1990	Air traffic, Dom. > 3000 ft.		80503	0	0	2	80	0	3	0	0	47
1990	Air traffic, Int. > 3000 ft.		80504	0	5	25	864	0	36	0	5	508
1990	Agriculture		806	0	4	21	709	0	29	765	4	417
1990	Forestry		807	0	0	0	3	0	0	89	0	2
1990	Industry		808	0	2	11	375	0	15	210	2	221
1990	Household and gardening		809	0	0	1	46	0	2	1747	0	27

Year	Category	Mode	SNAP ID	Arsenic [kg]	Cadmium [kg]	Chromium [kg]	Copper [kg]	Mercury [kg]	Nickel [kg]	Lead [kg]	Selenium [kg]	Zinc [kg]
2003	Passenger cars	Highway driving	70101	0	3	17	590	0	24	9	3	347
2003	Passenger cars	Rural driving	70102	0	8	38	1277	0	53	19	8	751
2003	Passenger cars	Urban driving	70103	0	10	50	1686	0	69	26	10	992
2003	Light duty vehicles	Highway driving	70201	0	1	5	157	0	6	0	1	92
2003	Light duty vehicles	Rural driving	70202	0	3	14	486	0	20	1	3	286
2003	Light duty vehicles	Urban driving	70203	0	3	14	487	0	20	1	3	286
2003	Heavy duty vehicles	Highway driving	70301	0	3	13	451	0	19	0	3	265
2003	Heavy duty vehicles	Rural driving	70302	0	4	20	686	0	28	0	4	403
2003	Heavy duty vehicles	Urban driving	70303	0	3	14	490	0	20	0	3	288
2003	Mopeds		704	0	0	0	8	0	0	0	0	5
2003	Motorcycles	Highway driving	70501	0	0	0	5	0	0	0	0	3
2003	Motorcycles	Rural driving	70502	0	0	0	11	0	0	0	0	6
2003	Motorcycles	Urban driving	70503	0	0	0	13	0	1	0	0	8
2003	Evaporation		706	0	0	0	0	0	0	0	0	0
2003	Military		801	0	0	1	50	0	2	78	0	29
2003	Railways		802	0	1	3	117	0	5	0	1	69
2003	Inland waterways		803	0	0	2	75	0	3	1	0	44
2003	National sea traffic		80402	27	2	13	27	5	1343	18	36	85
2003	Fishing		80403	11	2	8	11	10	75	20	40	101
2003	International sea traffic		80404	274	20	120	274	34	15043	149	297	693
2003	Air traffic, Dom. < 3000 ft.		80501	0	0	1	19	0	1	1026	0	11
2003	Air traffic, Int. < 3000 ft.		80502	0	1	3	110	0	5	87	1	65
2003	Air traffic, Dom. > 3000 ft.		80503	0	0	2	55	0	2	0	0	32
2003	Air traffic, Int. > 3000 ft.		80504	0	6	31	1069	0	44	0	6	629
2003	Agriculture		806	0	4	19	656	0	27	0	4	386
2003	Forestry		807	0	0	0	2	0	0	0	0	1
2003	Industry		808	0	2	10	347	0	14	0	2	204
2003	Household and gardening		809	0	0	1	43	0	2	1	0	26

Annex 12: PAH emission factors and total emissions for 1990 and 2003 in CollectER format

Year	SNAP ID	Category	Fuel type	Mode	Dioxins/ Furans [g/GJ]	Flouranthene [g/GJ]	Benzo(b) flouranthene [g/GJ]	Benzo(k) flouranthene [g/GJ]	Benzo(a) pyrene [g/GJ]	Benzo(g,h,i) perylene [g/GJ]	indeno(1,2,3-c,d) pyrene [g/GJ]
1990	070101	Passenger cars	Diesel	Highway driving	7.01E-10	1.22E-02	7.48E-04	6.78E-04	8.18E-04	1.59E-03	7.71E-04
1990	070101	Passenger cars	Gasoline 2-stroke	Highway driving							
1990	070101	Passenger cars	Gasoline conventional	Highway driving	1.34E-08	8.54E-03	5.55E-04	4.27E-04	4.69E-04	1.11E-03	4.27E-04
1990	070101	Passenger cars	Gasoline catalyst	Highway driving	0.00E+00	8.62E-04	1.92E-04	2.39E-04	1.92E-04	3.83E-04	2.87E-04
1990	070101	Passenger cars	LPG	Highway driving							
1990	070102	Passenger cars	Diesel	Rural driving	8.52E-10	1.49E-02	9.09E-04	8.24E-04	9.94E-04	1.93E-03	9.37E-04
1990	070102	Passenger cars	Gasoline 2-stroke	Rural driving							
1990	070102	Passenger cars	Gasoline conventional	Rural driving	1.51E-08	9.58E-03	6.23E-04	4.79E-04	5.27E-04	1.25E-03	4.79E-04
1990	070102	Passenger cars	Gasoline catalyst	Rural driving	0.00E+00	9.60E-04	2.13E-04	2.67E-04	2.13E-04	4.26E-04	3.20E-04
1990	070102	Passenger cars	LPG	Rural driving							
1990	070103	Passenger cars	Diesel	Urban driving	5.33E-10	9.30E-03	5.68E-04	5.15E-04	6.21E-04	1.21E-03	5.86E-04
1990	070103	Passenger cars	Gasoline 2-stroke	Urban driving							
1990	070103	Passenger cars	Gasoline conventional	Urban driving	1.02E-08	6.47E-03	4.20E-04	3.23E-04	3.56E-04	8.41E-04	3.23E-04
1990	070103	Passenger cars	Gasoline catalyst	Urban driving	0.00E+00	5.18E-04	1.15E-04	1.44E-04	1.15E-04	2.30E-04	1.72E-04
1990	070103	Passenger cars	LPG	Urban driving							
1990	070201	Light duty vehicles	Diesel	Highway driving	4.87E-10	8.51E-03	5.19E-04	4.70E-04	5.68E-04	1.10E-03	5.36E-04
1990	070201	Light duty vehicles	Gasoline conventional	Highway driving	1.27E-08	8.09E-03	5.26E-04	4.04E-04	4.45E-04	1.05E-03	4.04E-04
1990	070201	Light duty vehicles	Gasoline catalyst	Highway driving	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1990	070202	Light duty vehicles	Diesel	Rural driving	5.33E-10	9.31E-03	5.68E-04	5.15E-04	6.22E-04	1.21E-03	5.86E-04
1990	070202	Light duty vehicles	Gasoline conventional	Rural driving	1.20E-08	7.63E-03	4.95E-04	3.81E-04	4.19E-04	9.91E-04	3.81E-04
1990	070202	Light duty vehicles	Gasoline catalyst	Rural driving	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1990	070203	Light duty vehicles	Diesel	Urban driving	3.98E-10	6.95E-03	4.25E-04	3.85E-04	4.64E-04	9.02E-04	4.38E-04
1990	070203	Light duty vehicles	Gasoline conventional	Urban driving	7.18E-09	4.56E-03	2.96E-04	2.28E-04	2.51E-04	5.92E-04	2.28E-04
1990	070203	Light duty vehicles	Gasoline catalyst	Urban driving	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1990	070301	Heavy duty vehicles	Diesel	Highway driving	1.06E-09	2.09E-03	5.26E-04	7.80E-04	9.74E-05	7.78E-05	1.36E-04
1990	070301	Heavy duty vehicles	Gasoline	Highway driving							
1990	070302	Heavy duty vehicles	Diesel	Rural driving	1.12E-09	2.21E-03	5.57E-04	8.25E-04	1.03E-04	8.24E-05	1.44E-04
1990	070302	Heavy duty vehicles	Gasoline	Rural driving							
1990	070303	Heavy duty vehicles	Diesel	Urban driving	9.11E-10	1.79E-03	4.51E-04	6.68E-04	8.34E-05	6.67E-05	1.17E-04
1990	070303	Heavy duty vehicles	Gasoline	Urban driving							
1990	0704	Mopeds	Gasoline								
1990	070501	Motorcycles	Gasoline	Highway driving	2.00E-08	1.27E-02	8.24E-04	6.34E-04	6.97E-04	1.65E-03	6.34E-04

1990	070502	Motorcycles	Gasoline	Rural driving	2.39E-08	1.52E-02	9.86E-04	7.59E-04	8.34E-04	1.97E-03	7.59E-04
1990	070503	Motorcycles	Gasoline	Urban driving	2.41E-08	1.53E-02	9.94E-04	7.65E-04	8.41E-04	1.99E-03	7.65E-04

Year	SNAP ID	Category	Fuel type	Mode	Dioxins/ Furans [g/GJ]	Flouranthene [g/GJ]	Benzo(b) flouranthene [g/GJ]	Benzo(k) flouranthene [g/GJ]	Benzo(a) pyrene [g/GJ]	Benzo(g,h,i) perylene [g/GJ]	indeno(1,2,3-c,d) pyrene [g/GJ]
2003	070101	Passenger cars	Diesel	Highway driving	7.34E-10	1.28E-02	7.82E-04	7.09E-04	8.56E-04	1.66E-03	8.07E-04
2003	070101	Passenger cars	Gasoline 2-stroke	Highway driving							
2003	070101	Passenger cars	Gasoline conventional	Highway driving	1.39E-08	8.82E-03	5.73E-04	4.41E-04	4.85E-04	1.15E-03	4.41E-04
2003	070101	Passenger cars	Gasoline catalyst	Highway driving	0.00E+00	8.84E-04	1.96E-04	2.45E-04	1.96E-04	3.93E-04	2.95E-04
2003	070101	Passenger cars	LPG	Highway driving							
2003	070102	Passenger cars	Diesel	Rural driving	8.35E-10	1.46E-02	8.91E-04	8.07E-04	9.75E-04	1.89E-03	9.19E-04
2003	070102	Passenger cars	Gasoline 2-stroke	Rural driving							
2003	070102	Passenger cars	Gasoline conventional	Rural driving	1.53E-08	9.74E-03	6.33E-04	4.87E-04	5.36E-04	1.27E-03	4.87E-04
2003	070102	Passenger cars	Gasoline catalyst	Rural driving	0.00E+00	9.87E-04	2.19E-04	2.74E-04	2.19E-04	4.39E-04	3.29E-04
2003	070102	Passenger cars	LPG	Rural driving							
2003	070103	Passenger cars	Diesel	Urban driving	5.54E-10	9.68E-03	5.91E-04	5.36E-04	6.47E-04	1.26E-03	6.10E-04
2003	070103	Passenger cars	Gasoline 2-stroke	Urban driving							
2003	070103	Passenger cars	Gasoline conventional	Urban driving	9.99E-09	6.34E-03	4.12E-04	3.17E-04	3.49E-04	8.25E-04	3.17E-04
2003	070103	Passenger cars	Gasoline catalyst	Urban driving	0.00E+00	5.38E-04	1.19E-04	1.49E-04	1.19E-04	2.39E-04	1.79E-04
2003	070103	Passenger cars	LPG	Urban driving							
2003	070201	Light duty vehicles	Diesel	Highway driving	5.29E-10	9.23E-03	5.64E-04	5.11E-04	6.17E-04	1.20E-03	5.81E-04
2003	070201	Light duty vehicles	Gasoline conventional	Highway driving	1.27E-08	8.09E-03	5.26E-04	4.04E-04	4.45E-04	1.05E-03	4.04E-04
2003	070201	Light duty vehicles	Gasoline catalyst	Highway driving	0.00E+00	6.18E-04	1.37E-04	1.72E-04	1.37E-04	2.75E-04	2.06E-04
2003	070202	Light duty vehicles	Diesel	Rural driving	5.78E-10	1.01E-02	6.17E-04	5.59E-04	6.75E-04	1.31E-03	6.36E-04
2003	070202	Light duty vehicles	Gasoline conventional	Rural driving	1.20E-08	7.63E-03	4.95E-04	3.81E-04	4.19E-04	9.91E-04	3.81E-04
2003	070202	Light duty vehicles	Gasoline catalyst	Rural driving	0.00E+00	5.84E-04	1.30E-04	1.62E-04	1.30E-04	2.59E-04	1.95E-04
2003	070203	Light duty vehicles	Diesel	Urban driving	4.16E-10	7.26E-03	4.43E-04	4.02E-04	4.85E-04	9.42E-04	4.57E-04
2003	070203	Light duty vehicles	Gasoline conventional	Urban driving	6.92E-09	4.39E-03	2.85E-04	2.20E-04	2.42E-04	5.71E-04	2.20E-04
2003	070203	Light duty vehicles	Gasoline catalyst	Urban driving	0.00E+00	3.37E-04	7.49E-05	9.36E-05	7.49E-05	1.50E-04	1.12E-04
2003	070301	Heavy duty vehicles	Diesel	Highway driving	1.03E-09	2.03E-03	5.12E-04	7.59E-04	9.48E-05	7.59E-05	1.33E-04
2003	070301	Heavy duty vehicles	Gasoline	Highway driving							
2003	070302	Heavy duty vehicles	Diesel	Rural driving	1.05E-09	2.07E-03	5.21E-04	7.72E-04	9.65E-05	7.70E-05	1.35E-04
2003	070302	Heavy duty vehicles	Gasoline	Rural driving							
2003	070303	Heavy duty vehicles	Diesel	Urban driving	8.54E-10	1.68E-03	4.23E-04	6.26E-04	7.82E-05	6.25E-05	1.10E-04
2003	070303	Heavy duty vehicles	Gasoline	Urban driving							
2003	0704	Mopeds	Gasoline								
2003	070501	Motorcycles	Gasoline	Highway driving	2.02E-08	1.28E-02	8.32E-04	6.40E-04	7.04E-04	1.66E-03	6.40E-04

2003	070502	Motorcycles	Gasoline	Rural driving	2.41E-08	1.53E-02	9.96E-04	7.66E-04	8.43E-04	1.99E-03	7.66E-04
2003	070503	Motorcycles	Gasoline	Urban driving	2.44E-08	1.55E-02	1.01E-03	7.75E-04	8.52E-04	2.01E-03	7.75E-04

Year	SNAP ID	Category	Fuel type	Mode	Dioxins/ Furans [ng/GJ]	Flouranthene [microg/GJ]	Benzo(b) flouranthene [microg/GJ]	Benzo(k) flouranthene [microg/GJ]	Benzo(a) pyrene [microg/GJ]	Benzo(g,h,i) perylene [microg/GJ]	indeno(1,2,3-c,d) pyrene [microg/GJ]
1990	0801	Military	Diesel		0.71	4391.42	570.64	568.31	289.75	550.01	290.13
1990	0801	Military	Jet fuel	< 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	0801	Military	Jet fuel	> 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	0801	Military	Gasoline		6.27	5257.47	277.33	116.39	141.99	824.70	299.87
1990	0801	Military	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	0802	Railways	Diesel		0.70	1365.92	348.03	388.90	57.47	49.17	89.40
1990	0802	Railways	Kerosene								
1990	0802	Railways	Gasoline		6.27	5257.47	277.33	116.39	141.99	824.70	299.87
1990	0803	Inland waterways	Diesel		0.71	4391.42	570.64	568.31	289.75	550.01	290.13
1990	0803	Inland waterways	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	080402	National sea traffic	Residual oil		13.42	5190.00	270.00	50.00	20.00	70.00	30.00
1990	080402	National sea traffic	Diesel		12.01	7420.00	640.00	300.00	150.00	1430.00	1180.00
1990	080402	National sea traffic	Kerosene								
1990	080402	National sea traffic	LPG								
1990	080403	Fishing	Residual oil		13.42	5190.00	270.00	50.00	20.00	70.00	30.00
1990	080403	Fishing	Diesel		12.01	7420.00	640.00	300.00	150.00	1430.00	1180.00
1990	080403	Fishing	Kerosene								
1990	080403	Fishing	Gasoline		11.42	3420.09	342.47	146.12	244.29	488.58	244.29
1990	080403	Fishing	LPG								
1990	080404	International sea traffic	Residual oil		13.42	4120.00	200.00	90.00	70.00	260.00	200.00
1990	080404	International sea traffic	Diesel		12.01	7420.00	640.00	300.00	150.00	1430.00	1180.00
1990	080501	Air traffic. other airports	Jet fuel	Dom. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	080501	Air traffic. other airports	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	080502	Air traffic. other airports	Jet fuel	Int. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	080502	Air traffic. other airports	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	080503	Air traffic. other airports	Jet fuel	Dom. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	080504	Air traffic. other airports	Jet fuel	Int. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	0806	Agriculture	Diesel		0.71	4391.42	570.64	568.31	289.75	550.01	290.13
1990	0806	Agriculture	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	0807	Forestry	Diesel		0.71	4391.42	570.64	568.31	289.75	550.01	290.13
1990	0807	Forestry	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	0808	Industry	Diesel		0.71	4391.42	570.64	568.31	289.75	550.01	290.13
1990	0808	Industry	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	0808	Industry	LPG								
1990	0809	Household and gardening	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	080501	Air traffic. CPH. airport	Jet fuel	Dom. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	080501	Air traffic. Copenhagen airport	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70

1990	080502	Air traffic. Copenhagen airport	Jet fuel	Int. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	080502	Air traffic. Copenhagen airport	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
1990	080503	Air traffic. Copenhagen airport	Jet fuel	Dom. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1990	080504	Air traffic. Copenhagen airport	Jet fuel	Int. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year	SNAP ID	Category	Fuel type	Mode	Dioxins/ Furans [g/GJ]	Flouranthene [g/GJ]	Benzo(b) flouranthene [g/GJ]	Benzo(k) flouranthene [g/GJ]	Benzo(a) pyrene [g/GJ]	Benzo(g,h,i) perylene [g/GJ]	indeno(1,2,3-c,d) pyrene [g/GJ]
2003	801	Military	Diesel		0.71	4349.86	510.47	495.91	255.72	464.46	264.30
2003	801	Military	Jet fuel	< 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	801	Military	Jet fuel	> 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	801	Military	Gasoline		6.89	2151.74	179.80	115.04	118.07	357.51	178.80
2003	801	Military	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	802	Railways	Diesel		0.72	1411.28	359.58	401.81	59.38	50.80	92.37
2003	803	Inland waterways	Diesel		0.71	4349.86	510.47	495.91	255.72	464.46	264.30
2003	803	Inland waterways	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	80402	National sea traffic	Residual oil		13.42	5190.00	270.00	50.00	20.00	70.00	30.00
2003	80402	National sea traffic	Diesel		12.01	7420.00	640.00	300.00	150.00	1430.00	1180.00
2003	80402	National sea traffic	Kerosene								
2003	80402	National sea traffic	LPG								
2003	80403	Fishing	Residual oil		13.42	5190.00	270.00	50.00	20.00	70.00	30.00
2003	80403	Fishing	Diesel		12.01	7420.00	640.00	300.00	150.00	1430.00	1180.00
2003	80403	Fishing	Kerosene								
2003	80403	Fishing	Gasoline		11.42	3420.00	342.00	146.00	244.00	489.00	244.00
2003	80403	Fishing	LPG								
2003	80404	International sea traffic	Residual oil		13.42	4120.00	200.00	90.00	70.00	260.00	200.00
2003	80404	International sea traffic	Diesel		12.01	7420.00	640.00	300.00	150.00	1430.00	1180.00
2003	80501	Air traffic. other airports	Jet fuel	Dom. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	80501	Air traffic. other airports	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	80502	Air traffic. other airports	Jet fuel	Int. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	80502	Air traffic. other airports	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	80503	Air traffic. other airports	Jet fuel	Dom. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	80504	Air traffic. other airports	Jet fuel	Int. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	806	Agriculture	Diesel		0.71	4349.86	510.47	495.91	255.72	464.46	264.30
2003	806	Agriculture	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70

2003	807	Forestry	Diesel		0.71	4349.86	510.47	495.91	255.72	464.46	264.30
2003	807	Forestry	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	808	Industry	Diesel		0.71	4349.86	510.47	495.91	255.72	464.46	264.30
2003	808	Industry	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	808	Industry	LPG								
2003	809	Household and gardening	Gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	80501	Air traffic. Copenhagen airport	Jet fuel	Dom. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	80501	Air traffic. Copenhagen airport	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	80502	Air traffic. Copenhagen airport	Jet fuel	Int. < 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	80502	Air traffic. Copenhagen airport	Aviation gasoline		5.11	4328.53	209.06	71.27	114.03	688.95	244.70
2003	80503	Air traffic. Copenhagen airport	Jet fuel	Dom. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2003	80504	Air traffic. Copenhagen airport	Jet fuel	Int. > 3000 ft	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Year	Category	Mode	SNAP ID	Dioxins/ Furans [kg]	Flouranthene [kg]	Benzo(b) flouranthene [kg]	Benzo(k) flouranthene [kg]	Benzo(a) pyrene [kg]	Benzo(g,h,i) perylene [kg]	indeno(1,2,3-c,d) pyrene [kg]
1990	Passenger cars	Highway driving	70101	0.1	70.6	3.9	1.9	2.5	11.2	4.1
1990	Passenger cars	Rural driving	70102	0.2	244.3	13.6	6.7	8.6	38.8	14.3
1990	Passenger cars	Urban driving	70103	0.2	228.0	12.7	6.2	8.1	36.2	13.4
1990	Light duty vehicles	Highway driving	70201	0.0	30.7	2.6	2.2	2.2	4.8	2.0
1990	Light duty vehicles	Rural driving	70202	0.0	120.1	10.1	8.6	8.6	18.8	7.9
1990	Light duty vehicles	Urban driving	70203	0.0	104.7	8.8	7.5	7.5	16.4	6.9
1990	Heavy duty vehicles	Highway driving	70301	0.0	14.9	3.8	4.3	0.6	0.5	1.0
1990	Heavy duty vehicles	Rural driving	70302	0.0	28.6	7.3	8.2	1.2	1.0	1.9
1990	Heavy duty vehicles	Urban driving	70303	0.0	19.8	5.1	5.6	0.8	0.7	1.3
1990	Mopeds		704	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990	Motorcycles	Highway driving	70501	0.0	0.8	0.0	0.0	0.0	0.1	0.0
1990	Motorcycles	Rural driving	70502	0.0	1.8	0.1	0.0	0.1	0.3	0.1
1990	Motorcycles	Urban driving	70503	0.0	2.1	0.1	0.0	0.1	0.3	0.1
1990	Evaporation		706	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990	Military		801	0.0	0.7	0.1	0.1	0.0	0.1	0.0
1990	Railways		802	0.0	5.5	1.4	1.6	0.2	0.2	0.4
1990	Inland waterways		803	0.0	4.0	0.4	0.3	0.2	0.6	0.3
1990	National sea traffic		80402	0.1	39.1	2.7	1.0	0.5	4.2	3.4
1990	Fishing		80403	0.1	76.1	6.5	3.0	1.5	14.4	11.9
1990	International sea traffic		80404	0.5	203.9	13.2	6.1	3.7	24.1	19.4

1990	Air traffic. Dom. < 3000 ft.	80501	0.0	0.5	0.0	0.0	0.0	0.1	0.0
1990	Air traffic. Int. < 3000 ft.	80502	0.0	0.2	0.0	0.0	0.0	0.0	0.0
1990	Air traffic. Dom. > 3000 ft.	80503	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990	Air traffic. Int. > 3000 ft.	80504	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1990	Agriculture	806	0.0	78.2	10.0	9.9	5.1	9.9	5.1
1990	Forestry	807	0.0	0.3	0.0	0.0	0.0	0.0	0.0
1990	Industry	808	0.0	41.4	5.3	5.3	2.7	5.2	2.7
1990	Household and gardening	809	0.0	5.1	0.3	0.1	0.1	0.8	0.3

Year	Category	Mode	SNAP ID	Dioxins/ Furans [kg]	Flouranthene [kg]	Benzo(b) flouranthene [kg]	Benzo(k) flouranthene [kg]	Benzo(a) pyrene [kg]	Benzo(g,h,i) perylene [kg]	indeno(1,2,3-c,d) pyrene [kg]
2003	Passenger cars	Highway driving	70101	0.0	60.9	5.3	5.3	5.2	10.8	6.0
2003	Passenger cars	Rural driving	70102	0.1	147.5	12.8	12.8	12.7	26.1	14.6
2003	Passenger cars	Urban driving	70103	0.1	112.2	9.7	9.7	9.6	19.9	11.1
2003	Light duty vehicles	Highway driving	70201	0.0	33.8	2.1	1.9	2.3	4.5	2.2
2003	Light duty vehicles	Rural driving	70202	0.0	112.7	7.0	6.4	7.6	14.8	7.2
2003	Light duty vehicles	Urban driving	70203	0.0	78.9	4.9	4.5	5.3	10.4	5.1
2003	Heavy duty vehicles	Highway driving	70301	0.0	23.0	5.8	8.6	1.1	0.9	1.5
2003	Heavy duty vehicles	Rural driving	70302	0.0	35.5	9.0	13.3	1.7	1.3	2.3
2003	Heavy duty vehicles	Urban driving	70303	0.0	20.6	5.2	7.7	1.0	0.8	1.4
2003	Mopeds		704	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003	Motorcycles	Highway driving	70501	0.0	1.5	0.1	0.1	0.1	0.2	0.1
2003	Motorcycles	Rural driving	70502	0.0	4.3	0.3	0.2	0.2	0.6	0.2
2003	Motorcycles	Urban driving	70503	0.0	5.1	0.3	0.3	0.3	0.7	0.3
2003	Evaporation		706	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003	Military		801	0.0	2.6	0.3	0.3	0.2	0.3	0.2
2003	Railways		802	0.0	4.2	1.1	1.2	0.2	0.2	0.3
2003	Inland waterways		803	0.0	8.3	0.7	0.5	0.3	1.1	0.5
2003	National sea traffic		80402	0.1	37.9	2.9	1.2	0.6	5.6	4.6
2003	Fishing		80403	0.1	63.0	5.4	2.5	1.3	12.1	10.0
2003	International sea traffic		80404	0.5	238.1	17.4	8.1	4.5	35.0	28.6
2003	Air traffic. Dom. < 3000 ft.		80501	0.0	0.3	0.0	0.0	0.0	0.1	0.0
2003	Air traffic. Int. < 3000 ft.		80502	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003	Air traffic. Dom. > 3000 ft.		80503	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003	Air traffic. Int. > 3000 ft.		80504	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003	Agriculture		806	0.0	71.7	8.3	8.0	4.2	7.8	4.4

2003	Forestry	807	0.0	0.3	0.0	0.0	0.0	0.0	0.0
2003	Industry	808	0.0	37.9	4.4	4.3	2.2	4.1	2.3
2003	Household and gardening	809	0.0	4.8	0.2	0.1	0.1	0.8	0.3

Annex 13: Fuel use and emissions in NFR format

Fuel

	IPCC ID	Unit	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Fuel	Industry-Other (1A2f)	[PJ]	10.7	10.7	10.7	10.7	10.7	10.7	10.6	10.6	10.5	10.5	10.4	10.4	10.4	10.3	10.3	10.2	10.2	10.2	10.2
Fuel	Civil Aviation (1A3a)	[PJ]	3.6	3.3	3.7	3.8	3.6	3.4	2.8	2.7	2.6	2.7	2.8	2.8	2.9	2.7	2.4	2.1	2.2	1.9	1.9
Fuel	Road (1A3b)	[PJ]	112.5	118.8	118.9	119.6	120.7	127.3	132.8	135.2	136.9	143.7	145.0	147.3	150.1	152.7	154.5	152.9	153.4	155.0	161.4
Fuel	Railways (1A3c)	[PJ]	4.9	4.9	4.4	4.6	4.2	4.0	4.1	4.3	4.5	4.1	4.1	4.1	4.0	3.3	3.1	3.1	2.9	2.8	3.0
Fuel	Navigation (1A3d)	[PJ]	6.5	7.4	7.8	6.9	7.6	7.3	8.6	8.0	8.9	8.5	9.0	9.4	8.5	7.2	6.7	6.8	6.7	7.7	7.6
Fuel	Residential (1A4b)	[PJ]	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Fuel	Ag./for./fish. (1A4c)	[PJ]	26.7	27.8	26.0	27.1	27.9	28.3	28.3	28.2	25.9	25.5	24.8	25.3	25.1	25.2	25.0	24.9	24.5	25.5	25.1
Fuel	Military (1A5)	[PJ]	5.5	4.3	5.0	2.7	2.3	1.6	3.9	1.9	3.3	3.5	3.4	2.4	2.3	2.8	2.5	1.5	1.3	1.2	1.3
Fuel	Navigation int. (1A3d)	[PJ]	17.3	20.1	29.4	37.3	38.2	40.2	36.1	37.9	56.1	63.1	66.3	63.0	57.8	58.2	54.6	56.0	47.3	39.1	41.2
Fuel	Civil Aviation int. (1A3a)	[PJ]	19.3	20.9	22.4	24.0	25.1	24.1	22.7	23.5	23.0	25.2	25.9	27.4	27.9	30.0	31.8	32.6	33.1	28.6	30.4

SO_2, NO_x, NMVOC, CH_4, CO, CO_2, N_2O and NH_3

pol_name	IPCC ID	Unit	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
SO2	Industry-Other (1A2f)	[tons]	2173	1304	1304	1304	869	869	863	856	850	843	837	208	206	205	203	201	201	201	201
SO2	Civil Aviation (1A3a)	[tons]	8	8	9	9	9	8	7	6	6	7	7	7	7	6	6	5	5	5	5
SO2	Road (1A3b)	[tons]	11624	7865	7850	7860	5490	5769	5905	3822	1571	1671	1684	1723	1746	1769	1089	353	355	358	373
SO2	Railways (1A3c)	[tons]	1152	695	618	641	393	376	382	263	105	95	96	95	93	78	40	7	7	7	7
SO2	Navigation (1A3d)	[tons]	4248	5521	6137	4381	6137	5535	6698	3393	3666	3274	2782	2093	1852	1683	1723	1653	1390	2050	1859
SO2	Residential (1A4b)	[tons]	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
SO2	Ag./for./fish. (1A4c)	[tons]	5326	3827	3679	3386	2895	2982	2747	2772	2534	2349	2299	1410	1478	1187	1161	1158	1117	1212	1234
SO2	Military (1A5)	[tons]	337	211	113	31	38	21	164	65	32	31	50	25	35	41	20	6	4	5	4
SO2	Navigation int. (1A3d)	[tons]	20684	24627	39745	51685	52277	54300	46066	37478	65384	69311	76281	71536	65585	59858	60339	65168	54366	39610	44114
SO2	Civil Aviation int. (1A3a)	[tons]	44	48	52	55	58	56	52	54	53	58	60	63	64	69	73	75	76	66	70
NOx	Industry-Other (1A2f)	[tons]	12747	12747	12747	12747	12747	12747	12673	12598	12524	12449	12375	12300	12226	12151	11766	11362	11029	10668	10646
NOx	Civil Aviation (1A3a)	[tons]	1203	1132	1237	1252	1208	1123	920	902	900	940	958	971	998	911	815	723	747	636	585
NOx	Road (1A3b)	[tons]	89554	94361	94276	95038	95881	100118	101506	101402	99862	98904	95730	93410	89086	85642	80531	74501	70348	66750	64892
NOx	Railways (1A3c)	[tons]	6025	6063	5391	5589	5145	4913	4995	5284	5485	4971	5015	4977	4846	4089	3730	3727	3396	3396	3540
NOx	Navigation (1A3d)	[tons]	8316	9536	10108	8817	9813	9382	11195	10240	11202	10622	11218	11644	10247	8456	7694	7790	7626	9115	8842
NOx	Residential (1A4b)	[tons]	254	254	254	254	254	254	252	251	249	248	246	245	243	242	240	239	239	239	239
NOx	Ag./for./fish. (1A4c)	[tons]	33912	35344	33015	34467	35469	36021	36035	36023	32929	32431	31502	32186	31951	31957	31735	31490	30832	31863	31028
NOx	Military (1A5)	[tons]	2302	1986	1608	977	868	494	1864	1010	1296	1263	1716	937	1139	1296	955	509	607	416	449
NOx	Navigation int. (1A3d)	[tons]	36143	42057	61836	78416	80275	84417	75576	79058	117623	132160	138528	131504	120575	120988	113827	117148	98722	81292	85761
NOx	Civil Aviation int. (1A3a)	[tons]	5663	6129	6569	7035	7313	7016	6586	6846	6702	7317	7517	7904	8058	8662	9204	9446	9611	8738	9288
NMVOC	Industry-Other (1A2f)	[tons]	3114	3114	3114	3114	3114	3114	3120	3126	3132	3138	3144	3150	3155	3162	3142	3117	3086	3052	3006
NMVOC	Civil Aviation (1A3a)	[tons]	216	213	190	198	193	186	168	164	161	191	206	194	186	169	162	156	155	151	123
NMVOC	Road (1A3b)	[tons]	80886	80871	80268	79841	78269	80774	81436	80499	78250	74203	69476	65693	59195	54617	49083	41264	36708	34461	31861
NMVOC	Railways (1A3c)	[tons]	393	396	352	365	336	321	326	345	358	324	327	325	316	267	276	253	248	243	223
NMVOC	Navigation (1A3d)	[tons]	4472	4521	4545	4491	4533	4515	5278	5929	6661	7322	8035	8742	9374	9990	10647	11340	11333	11394	11383
NMVOC	Residential (1A4b)	[tons]	4425	4425	4425	4425	4425	4425	4399	4372	4346	4320	4293	4267	4241	4214	4188	4162	4162	4162	4162
NMVOC	Ag./for./fish. (1A4c)	[tons]	5401	5460	5376	5433	5482	5502	5472	5442	5282	5236	5170	5177	5130	5101	5064	5020	4990	5001	4931
NMVOC	Military (1A5)	[tons]	615	488	187	482	315	57	204	113	146	130	191	107	133	149	128	64	75	55	58
NMVOC	Navigation int. (1A3d)	[tons]	967	1126	1655	2098	2148	2259	2022	2116	3149	3536	3707	3519	3226	3237	3045	3134	2641	2174	2294
NMVOC	Civil Aviation int. (1A3a)	[tons]	261	288	313	342	361	331	309	316	309	308	343	360	365	386	395	407	406	391	405
CH4	Industry-Other (1A2f)	[tons]	136	136	136	136	136	136	138	139	140	141	142	143	144	145	147	148	148	148	148
CH4	Civil Aviation (1A3a)	[tons]	8	8	8	8	8	7	6	6	6	7	7	7	7	7	6	5	5	5	5

CH4	Road (1A3b)	[tons]	2486	2518	2544	2503	2460	2620	2891	3024	3283	3444	3602	3862	3700	3536	3454	3308	3265	3016	2964
CH4	Railways (1A3c)	[tons]	15	15	14	14	13	12	13	13	14	12	13	12	12	10	11	10	10	9	9
CH4	Navigation (1A3d)	[tons]	52	54	54	53	54	53	63	68	77	83	90	98	103	108	114	121	120	122	122
CH4	Residential (1A4b)	[tons]	138	138	138	138	138	138	137	136	135	135	134	133	132	131	131	130	130	130	130
CH4	Ag./for./fish. (1A4c)	[tons]	129	131	129	130	132	133	132	131	126	125	123	124	123	122	121	121	120	122	121
CH4	Military (1A5)	[tons]	31	25	16	19	14	5	17	9	12	12	16	9	11	12	10	5	6	4	5
CH4	Navigation int. (1A3d)	[tons]	30	35	51	65	66	70	63	65	97	109	115	109	100	100	94	97	82	67	71
CH4	Civil Aviation int. (1A3a)	[tons]	25	27	30	32	33	31	29	30	29	31	35	37	38	40	41	42	42	41	42
CO	Industry-Other (1A2f)	[tons]	11197	11197	11197	11197	11197	11197	11155	11113	11071	11028	10986	10944	10902	10860	10820	10778	10778	10778	10778
CO	Civil Aviation (1A3a)	[tons]	1256	1241	1118	1167	1140	1098	989	955	930	1098	1180	1117	1085	973	932	895	888	860	718
CO	Road (1A3b)	[tons]	574867	553993	534472	487184	458670	467744	484830	476563	481940	454750	438837	437939	388778	360719	336505	311907	302446	283783	274460
CO	Railways (1A3c)	[tons]	1098	1105	982	1018	937	895	910	963	999	906	914	907	883	745	717	694	637	627	611
CO	Navigation (1A3d)	[tons]	8176	8334	8408	8240	8370	8314	9729	10786	12094	13195	14453	15688	16687	17635	18715	19908	19887	20080	20045
CO	Residential (1A4b)	[tons]	50610	50610	50610	50610	50610	50610	50309	50009	49708	49407	49106	48805	48504	48203	47902	47601	47601	47601	47601
CO	Ag./for./fish. (1A4c)	[tons]	23748	23934	23641	23828	23964	24034	23911	23786	23258	23073	22829	22802	22641	22518	22377	22228	22150	22323	22259
CO	Military (1A5)	[tons]	4147	3071	1303	3129	1947	422	985	500	835	806	847	604	575	654	719	396	302	317	310
CO	Navigation int. (1A3d)	[tons]	3074	3578	5260	6670	6828	7180	6428	6725	10007	11241	11783	11185	10256	10291	9681	9963	8396	6914	7294
CO	Civil Aviation int. (1A3a)	[tons]	1103	1207	1289	1416	1564	1442	1357	1399	1388	1342	1421	1502	1564	1662	1743	1790	1796	1610	1684
CO2	Industry-Other (1A2f)	[ktons]	778	778	778	778	778	778	775	771	767	764	760	757	753	749	746	742	742	742	742
CO2	Civil Aviation (1A3a)	[ktons]	256	241	268	271	262	243	199	193	190	196	199	205	212	194	174	154	161	140	138
CO2	Road (1A3b)	[ktons]	8260	8724	8734	8782	8866	9351	9759	9926	10052	10551	10648	10821	11026	11215	11350	11229	11272	11388	11864
CO2	Railways (1A3c)	[ktons]	364	366	326	338	311	297	302	319	331	300	303	301	293	247	232	228	211	210	218
CO2	Navigation (1A3d)	[ktons]	492	560	592	519	575	551	657	608	665	637	674	702	629	535	497	507	498	581	565
CO2	Residential (1A4b)	[ktons]	87	87	87	87	87	87	86	86	85	85	84	84	83	83	82	82	82	82	82
CO2	Ag./for./fish. (1A4c)	[ktons]	1975	2054	1925	2005	2061	2093	2092	2090	1918	1890	1838	1875	1861	1861	1852	1844	1810	1883	1855
CO2	Military (1A5)	[ktons]	402	316	361	196	165	119	287	141	237	252	252	176	171	204	182	111	97	89	92
CO2	Navigation int. (1A3d)	[ktons]	1320	1537	2261	2869	2936	3087	2762	2887	4300	4829	5061	4803	4403	4414	4155	4279	3605	2966	3130
CO2	Civil Aviation int. (1A3a)	[ktons]	1391	1503	1613	1725	1809	1736	1632	1693	1659	1818	1867	1971	2010	2159	2290	2350	2385	2059	2188
N2O	Industry-Other (1A2f)	[tons]	33	33	33	33	33	33	33	33	33	33	33	32	32	32	32	32	32	32	32
N2O	Civil Aviation (1A3a)	[tons]	10	10	11	11	11	10	9	9	9	9	10	11	11	9	9	8	8	8	8
N2O	Road (1A3b)	[tons]	340	367	370	376	384	423	494	556	615	735	813	886	1000	1074	1143	1185	1230	1270	1339
N2O	Railways (1A3c)	[tons]	10	10	9	9	9	8	8	9	9	8	8	8	8	7	6	6	6	6	6
N2O	Navigation (1A3d)	[tons]	29	33	35	30	34	32	39	35	39	37	39	40	35	29	26	26	26	31	30
N2O	Residential (1A4b)	[tons]	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
N2O	Ag./for./fish. (1A4c)	[tons]	96	101	93	98	101	103	103	104	93	91	88	91	90	90	90	90	88	92	91

N2O	Military (1A5)	[tons]	15	12	13	6	6	4	12	6	9	9	11	7	8	9	8	4	5	4	5
N2O	Navigation int. (1A3d)	[tons]	83	97	142	180	185	194	174	182	270	304	318	302	277	278	262	270	228	187	198
N2O	Civil Aviation int. (1A3a)	[tons]	47	50	54	58	61	59	56	58	57	63	64	69	70	75	80	82	82	72	76
NH3	Industry-Other (1A2f)	[tons]	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
NH3	Civil Aviation (1A3a)	[tons]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NH3	Road (1A3b)	[tons]	62	65	65	66	66	128	299	482	656	959	1204	1408	1735	1943	2108	2219	2336	2386	2489
NH3	Railways (1A3c)	[tons]	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NH3	Navigation (1A3d)	[tons]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NH3	Residential (1A4b)	[tons]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NH3	Ag./for./fish. (1A4c)	[tons]	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
NH3	Military (1A5)	[tons]	1	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
NH3	Navigation int. (1A3d)	[tons]		0						0	0										
NH3	Civil Aviation int. (1A3a)	[tons]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TSP, PM_{10} and $PM_{2.5}$

pol_name	IPCC ID	Unit	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
TSP	Industry-Other (1A2f)[3]	[tons]	1151	1151	1151	1151	1151	1151	1143	1134	1126	1118	1110	1102	1093	1085	1047	1002	966	926	926
TSP	Civil Aviation (1A3a)[4]	[tons]															2	3	3	3	3
TSP	Road (1A3b)	[tons]	4989	5443	5473	5388	5493	5734	5892	5689	5644	5730	5430	5326	4880	4485	4290	3965	3769	3499	3473
TSP	Railways (1A3c)	[tons]	247	249	221	229	211	202	205	217	225	204	206	204	199	168	146	141	125	124	119
TSP	Navigation (1A3d)[5]	[tons]	570	695	753	606	757	703	837	725	687	626	593	572	512	497	508	524	520	619	588
TSP	Residential (1A4b)[6]	[tons]															26	26	26	26	26
TSP	Ag./for./fish. (1A4c)[7]	[tons]	2603	2646	2579	2624	2672	2693	2666	2665	2549	2508	2468	2497	2483	2450	2434	2410	2380	2388	2380
TSP	Military (1A5)[8]	[tons]	98	100	48	10	22	10	115	69	63	52	115	45	75	79	56	19	39	20	25
TSP	Navigation int. (1A3d)	[tons]	2332	2785	4547	5931	5990	6213	5236	4921	8221	8841	9048	8313	7569	6721	6819	7614	6099	4428	4976
TSP	Civil Aviation int. (1A3a)[9]	[tons]															33	38	38	33	35
PM10	Industry-Other (1A2f)	[tons]																953	918	881	881
PM10	Civil Aviation (1A3a)	[tons]																3	3	3	3
PM10	Railways (1A3c)	[tons]																141	125	124	119
PM10	Navigation (1A3d)	[tons]																499	495	589	559
PM10	Residential (1A4b)	[tons]																26	26	26	26
PM10	Ag./for./fish. (1A4c)	[tons]																2291	2262	2269	2261
PM10	Military (1A5)	[tons]																19	39	20	25
PM10	Navigation int. (1A3d)	[tons]																7233	5794	4206	4728
PM10	Civil Aviation int. (1A3a)	[tons]																38	38	33	35
PM2.5	Industry-Other (1A2f)	[tons]																907	874	838	838
PM2.5	Civil Aviation (1A3a)	[tons]																3	3	3	3
PM2.5	Railways (1A3c)	[tons]																141	125	124	119
PM2.5	Navigation (1A3d)	[tons]																475	471	561	533
PM2.5	Residential (1A4b)	[tons]																26	26	26	26

[3] TSP emissions from gasoline are not included from 1998 and backwards. In 1998 the emissions from gasoline fuel use were 21 tons.
[4] TSP emissions are not included from 1998 and backwards.
[5] TSP emissions from gasoline are not included from 1998 and backwards. In 1998 the emissions from gasoline fuel use were 22 tons.
[6] TSP emissions are not included from 1998 and backwards.
[7] TSP emissions from gasoline are not included from 1998 and backwards. In 1998 the emissions from gasoline fuel use were 13 tons.
[8] TSP emissions from jet fuel are not included from 1999 and backwards: In 1999 the emissions from jet fuel use were 25 tons.
[9] TSP emissions are not included from 1998 and backwards.

PM2.5	Ag./for./fish. (1A4c)	[tons]	2178	2151	2157	2150
PM2.5	Military (1A5)	[tons]	19	39	20	25
PM2.5	Navigation int. (1A3d)	[tons]	6871	5505	3996	4491
PM2.5	Civil Aviation int. (1A3a)	[tons]	38	38	33	35

Heavy metals

pol_name	IPCC ID	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Arsenic	Civil Aviation (1A3a)	[kg]										0	0	0	0	0
Arsenic	Navigation (1A3d)	[kg]	47	57	46	38	32	26	22	19	21	22	22	22	30	27
Arsenic	Ag./for./fish. (1A4c)	[kg]	15	14	15	11	10	9	12	12	10	10	10	9	10	11
Arsenic	Military (1A5)	[kg]										0	0	0	0	0
Arsenic	Navigation int. (1A3d)	[kg]	363	302	276	475	505	514	332	426	366	379	432	342	240	274
Arsenic	Civil Aviation int. (1A3a)	[kg]										0	0	0	0	0
Cadmium	Industry-Other (1A2f)	[kg]	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Cadmium	Civil Aviation (1A3a)	[kg]	1	1	1	1	1	1	1	1	1	1	0	1	0	0
Cadmium	Road (1A3b)	[kg]	29	31	31	32	33	33	34	35	35	36	35	35	36	37
Cadmium	Railways (1A3c)	[kg]	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Cadmium	Navigation (1A3d)	[kg]	3	4	4	3	3	3	3	2	2	2	2	2	3	3
Cadmium	Residential (1A4b)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cadmium	Ag./for./fish. (1A4c)	[kg]	7	7	7	6	6	6	6	6	6	6	6	6	6	6
Cadmium	Military (1A5)	[kg]	0	1	0	1	1	1	1	1	1	1	0	0	0	0
Cadmium	Navigation int. (1A3d)	[kg]	24	20	19	32	34	35	20	30	27	27	29	24	18	20
Cadmium	Civil Aviation int. (1A3a)	[kg]	6	5	5	5	6	6	6	6	7	7	8	8	7	7
Chromium	Industry-Other (1A2f)	[kg]	11	11	11	11	11	11	11	10	10	10	10	10	10	10
Chromium	Civil Aviation (1A3a)	[kg]	4	3	3	3	3	3	3	3	3	3	2	3	2	2
Chromium	Road (1A3b)	[kg]	147	153	156	158	166	167	170	173	176	178	177	177	179	187
Chromium	Railways (1A3c)	[kg]	5	5	5	5	5	5	5	5	4	4	4	3	3	3
Chromium	Navigation (1A3d)	[kg]	21	25	21	19	17	15	14	12	12	12	13	13	16	15
Chromium	Residential (1A4b)	[kg]	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Chromium	Ag./for./fish. (1A4c)	[kg]	32	31	31	29	28	27	29	29	28	27	27	27	28	28
Chromium	Military (1A5)	[kg]	2	5	2	4	4	4	3	3	3	3	2	2	1	1
Chromium	Navigation int. (1A3d)	[kg]	150	127	118	199	213	218	133	182	161	164	184	147	106	120
Chromium	Civil Aviation int. (1A3a)	[kg]	28	26	27	26	29	30	31	32	34	36	37	38	33	35
Copper	Industry-Other (1A2f)	[kg]	375	372	369	366	364	361	358	355	352	350	347	347	347	347
Copper	Civil Aviation (1A3a)	[kg]	131	107	104	102	106	107	110	114	104	94	83	87	75	74
Copper	Road (1A3b)	[kg]	4999	5217	5305	5372	5639	5691	5784	5893	5994	6067	6003	6027	6091	6345
Copper	Railways (1A3c)	[kg]	160	162	172	178	162	163	162	157	133	125	123	114	113	117
Copper	Navigation (1A3d)	[kg]	83	97	90	86	84	82	81	82	88	92	97	97	104	102
Copper	Residential (1A4b)	[kg]	46	46	46	45	45	45	44	44	44	44	43	43	43	43

Copper	Ag./for./fish. (1A4c)	[kg]	726	719	716	707	700	694	693	687	679	673	668	667	669	669
Copper	Military (1A5)	[kg]	64	154	76	128	136	136	95	92	110	98	60	52	48	50
Copper	Navigation int. (1A3d)	[kg]	363	302	276	475	505	514	332	426	366	379	432	342	240	274
Copper	Civil Aviation int. (1A3a)	[kg]	936	880	913	894	980	1006	1063	1084	1164	1234	1267	1286	1110	1179
Mercury	Civil Aviation (1A3a)	[kg]										0	0	0	0	0
Mercury	Navigation (1A3d)	[kg]	5	6	6	7	7	8	8	7	5	5	5	5	5	5
Mercury	Ag./for./fish. (1A4c)	[kg]	12	12	12	10	10	9	9	9	10	10	10	9	10	10
Mercury	Military (1A5)	[kg]										0	0	0	0	0
Mercury	Navigation int. (1A3d)	[kg]	28	26	30	40	47	51	14	46	50	44	43	38	34	34
Mercury	Civil Aviation int. (1A3a)	[kg]										0	0	0	0	0
Nickel	Industry-Other (1A2f)	[kg]	15	15	15	15	15	15	15	15	15	14	14	14	14	14
Nickel	Civil Aviation (1A3a)	[kg]	5	4	4	4	4	4	5	5	4	4	3	4	3	3
Nickel	Road (1A3b)	[kg]	206	215	218	221	232	234	238	243	247	250	247	248	251	261
Nickel	Railways (1A3c)	[kg]	7	7	7	7	7	7	7	6	5	5	5	5	5	5
Nickel	Navigation (1A3d)	[kg]	2617	3173	2513	1955	1589	1166	864	709	992	1061	1115	1118	1523	1346
Nickel	Residential (1A4b)	[kg]	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Nickel	Ag./for./fish. (1A4c)	[kg]	255	129	215	149	48	55	202	231	61	41	41	40	44	103
Nickel	Military (1A5)	[kg]	3	6	3	5	6	6	4	4	5	4	2	2	2	2
Nickel	Navigation int. (1A3d)	[kg]	20956	17236	15429	27162	28664	29023	19856	23826	19820	20967	24364	19050	12906	15043
Nickel	Civil Aviation int. (1A3a)	[kg]	39	36	38	37	40	41	44	45	48	51	52	53	46	49
Lead	Industry-Other (1A2f)	[kg]	210	153	131	55	10	9	9	0	0	0	0	0	0	0
Lead	Civil Aviation (1A3a)	[kg]	1534	1423	1378	1328	1639	1788	1640	1559	1399	1387	1369	1343	1328	1026
Lead	Road (1A3b)	[kg]	99034	76876	69585	30165	5486	5545	5598	57	59	58	57	57	56	57
Lead	Railways (1A3c)	[kg]	0	0	0	0		0	0	0	0	0	0	0	0	
Lead	Navigation (1A3d)	[kg]	570	496	485	243	65	69	73	19	17	16	16	16	20	19
Lead	Residential (1A4b)	[kg]	1747	1269	1086	455	79	79	78	1	1	1	1	1	1	1
Lead	Ag./for./fish. (1A4c)	[kg]	879	645	556	242	58	56	58	20	20	20	20	19	21	21
Lead	Military (1A5)	[kg]	64	80	62	120	0	102	98	123	116	78	114	88	106	78
Lead	Navigation int. (1A3d)	[kg]	167	144	142	226	247	256	134	218	205	201	216	177	136	149
Lead	Civil Aviation int. (1A3a)	[kg]	490	465	452	456	153	175	126	145	145	124	118	114	113	87
Selenium	Industry-Other (1A2f)	[kg]	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Selenium	Civil Aviation (1A3a)	[kg]	1	1	1	1	1	1	1	1	1	1	0	1	0	0
Selenium	Road (1A3b)	[kg]	29	31	31	32	33	33	34	35	35	36	35	35	36	37
Selenium	Railways (1A3c)	[kg]	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Selenium	Navigation (1A3d)	[kg]	48	58	50	49	45	44	43	37	33	30	31	30	38	36

Selenium	Residential (1A4b)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenium	Ag./for./fish. (1A4c)	[kg]	54	54	55	44	42	40	44	44	43	43	43	41	45	44
Selenium	Military (1A5)	[kg]	0	1	0	1	1	1	1	1	1	1	0	0	0	0
Selenium	Navigation int. (1A3d)	[kg]	334	289	284	451	495	512	269	436	410	401	431	354	273	297
Selenium	Civil Aviation int. (1A3a)	[kg]	6	5	5	5	6	6	6	6	7	7	8	8	7	7
Zinc	Industry-Other (1A2f)	[kg]	221	219	217	216	214	212	211	209	207	206	204	204	204	204
Zinc	Civil Aviation (1A3a)	[kg]	77	63	61	60	62	63	65	67	61	55	49	51	44	44
Zinc	Road (1A3b)	[kg]	2941	3069	3121	3160	3317	3348	3402	3467	3526	3569	3531	3545	3583	3732
Zinc	Railways (1A3c)	[kg]	94	95	101	105	95	96	95	93	78	73	72	67	67	69
Zinc	Navigation (1A3d)	[kg]	132	157	142	145	137	138	140	127	117	113	117	115	134	129
Zinc	Residential (1A4b)	[kg]	27	27	27	27	26	26	26	26	26	26	26	26	26	26
Zinc	Ag./for./fish. (1A4c)	[kg]	542	539	539	509	502	492	499	495	491	488	485	480	491	488
Zinc	Military (1A5)	[kg]	38	91	45	75	80	80	56	54	65	58	35	31	28	29
Zinc	Navigation int. (1A3d)	[kg]	764	664	660	1038	1141	1183	607	1010	959	933	997	821	639	693
Zinc	Civil Aviation int. (1A3a)	[kg]	551	518	537	526	576	592	625	638	685	726	745	756	653	694

Dioxins and PAH

pol_name	IPCC ID	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Dioxins/furans	Industry-Other (1A2f)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Civil Aviation (1A3a)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Road (1A3b)	[g]	1	1	1	1	1	1	1	1	0	0	0	0	0	0
Dioxins/furans	Railways (1A3c)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Navigation (1A3d)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Residential (1A4b)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Ag./for./fish. (1A4c)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Military (1A5)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dioxins/furans	Navigation int. (1A3d)	[g]	1	0	0	1	1	1	1	1	1	1	1	1	0	1
Dioxins/furans	Civil Aviation int. (1A3a)	[g]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Flouranthene	Industry-Other (1A2f)	[kg]	41	40	40	41	39	40	39	38	37	37	38	38	38	38
Flouranthene	Civil Aviation (1A3a)	[kg]	0	0	0	0	1	1	1	0	0	0	0	0	0	0
Flouranthene	Road (1A3b)	[kg]	809	816	808	787	775	739	712	680	659	640	619	596	616	636
Flouranthene	Railways (1A3c)	[kg]	5	5	6	6	6	6	6	6	5	4	4	4	4	4
Flouranthene	Navigation (1A3d)	[kg]	43	51	49	56	54	59	63	56	45	40	41	40	47	46
Flouranthene	Residential (1A4b)	[kg]	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Flouranthene	Ag./for./fish. (1A4c)	[kg]	155	153	155	140	136	132	135	133	133	133	134	131	138	135
Flouranthene	Military (1A5)	[kg]	1	7	4	4	3	8	3	6	6	4	2	4	2	3
Flouranthene	Navigation int. (1A3d)	[kg]	204	190	212	294	340	361	349	322	343	311	306	266	232	238
Flouranthene	Civil Aviation int. (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(b) flouranthene	Industry-Other (1A2f)	[kg]	5	5	5	5	5	5	5	5	5	5	5	4	4	4
Benzo(b) flouranthene	Civil Aviation (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(b) flouranthene	Road (1A3b)	[kg]	65	66	66	65	66	65	64	63	62	62	60	59	60	62
Benzo(b) flouranthene	Railways (1A3c)	[kg]	1	1	1	2	1	1	1	1	1	1	1	1	1	1
Benzo(b) flouranthene	Navigation (1A3d)	[kg]	3	4	4	4	4	5	5	5	4	3	3	3	4	4
Benzo(b) flouranthene	Residential (1A4b)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(b) flouranthene	Ag./for./fish. (1A4c)	[kg]	17	16	16	15	15	14	15	14	14	14	14	13	14	14
Benzo(b) flouranthene	Military (1A5)	[kg]	0	1	1	1	0	1	0	1	1	1	0	0	0	0
Benzo(b) flouranthene	Navigation int. (1A3d)	[kg]	13	13	15	20	23	25	25	23	25	22	21	19	17	17
Benzo(b) flouranthene	Civil Aviation int. (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(k) flouranthene	Industry-Other (1A2f)	[kg]	5	5	5	5	5	5	5	5	5	5	4	4	4	4
Benzo(k) flouranthene	Civil Aviation (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Benzo(k) flouranthene	Road (1A3b)	[kg]	64	66	66	65	68	68	68	68	68	68	67	66	67	71
Benzo(k) flouranthene	Railways (1A3c)	[kg]	2	2	2	2	2	2	2	2	1	1	1	1	1	1
Benzo(k) flouranthene	Navigation (1A3d)	[kg]	1	2	2	2	2	2	3	2	2	2	2	2	2	2
Benzo(k) flouranthene	Residential (1A4b)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(k) flouranthene	Ag./for./fish. (1A4c)	[kg]	13	13	13	12	12	12	12	11	11	11	11	10	11	11
Benzo(k) flouranthene	Military (1A5)	[kg]	0	1	1	1	0	1	0	1	1	1	0	0	0	0
Benzo(k) flouranthene	Navigation int. (1A3d)	[kg]	6	6	7	9	11	12	11	11	12	10	10	9	8	8
Benzo(k) flouranthene	Civil Aviation int. (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(a) pyrene	Industry-Other (1A2f)	[kg]	3	3	3	3	3	3	2	2	2	2	2	2	2	2
Benzo(a) pyrene	Civil Aviation (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(a) pyrene	Road (1A3b)	[kg]	47	48	48	47	48	47	46	46	45	45	44	44	45	47
Benzo(a) pyrene	Railways (1A3c)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(a) pyrene	Navigation (1A3d)	[kg]	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Benzo(a) pyrene	Residential (1A4b)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(a) pyrene	Ag./for./fish. (1A4c)	[kg]	7	6	6	6	6	6	6	6	6	5	6	5	5	5
Benzo(a) pyrene	Military (1A5)	[kg]	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Benzo(a) pyrene	Navigation int. (1A3d)	[kg]	4	4	4	5	6	7	7	6	7	6	6	5	4	5
Benzo(a) pyrene	Civil Aviation int. (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(g,h,i) perylene	Industry-Other (1A2f)	[kg]	5	5	5	5	5	5	5	4	4	4	4	4	4	4
Benzo(g,h,i) perylene	Civil Aviation (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(g,h,i) perylene	Road (1A3b)	[kg]	99	101	101	100	100	96	94	92	90	89	87	85	88	91
Benzo(g,h,i) perylene	Railways (1A3c)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Benzo(g,h,i) perylene	Navigation (1A3d)	[kg]	5	6	6	8	8	10	11	9	7	6	6	6	7	7
Benzo(g,h,i) perylene	Residential (1A4b)	[kg]	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Benzo(g,h,i) perylene	Ag./for./fish. (1A4c)	[kg]	24	24	24	22	21	20	20	20	20	20	20	19	21	20
Benzo(g,h,i) perylene	Military (1A5)	[kg]	0	1	1	1	0	1	0	1	1	0	0	0	0	0
Benzo(g,h,i) perylene	Navigation int. (1A3d)	[kg]	24	24	30	37	45	49	48	45	52	45	41	37	35	35
Benzo(g,h,i) perylene	Civil Aviation int. (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
indeno(1,2,3-c,d) pyrene	Industry-Other (1A2f)	[kg]	3	3	3	3	3	3	3	2	2	2	2	2	2	2
indeno(1,2,3-c,d) pyrene	Civil Aviation (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
indeno(1,2,3-c,d) pyrene	Road (1A3b)	[kg]	45	46	47	47	48	48	48	48	48	49	48	48	50	52
indeno(1,2,3-c,d) pyrene	Railways (1A3c)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
indeno(1,2,3-c,d) pyrene	Navigation (1A3d)	[kg]	4	4	5	6	6	8	8	7	5	5	5	4	5	5
indeno(1,2,3-c,d) pyrene	Residential (1A4b)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0
indeno(1,2,3-c,d) pyrene	Ag./for./fish. (1A4c)	[kg]	17	17	17	15	15	14	14	14	14	14	14	14	15	14

indeno(1,2,3-c,d) pyrene	Military (1A5)	[kg]	0	0	0	0	0	1	0	0	0	0	0	0	0	0
indeno(1,2,3-c,d) pyrene	Navigation int. (1A3d)	[kg]	19	20	24	30	36	39	39	36	42	36	34	30	29	29
indeno(1,2,3-c,d) pyrene	Civil Aviation int. (1A3a)	[kg]	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Annex 14: Uncertainty estimates

Uncertainty estimation, SO_2

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data Gg SO2	Input data Gg SO2	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	SO2	5769	373	2	50	50,040	5,067	-0,063575572	0,0240	-3,178779	0,06782937	3,1795022
Other mobile sources	SO2	9793	3312	10	50	50,990	45,827	0,063412217	0,2128	3,1706109	3,0099567	4,3717974
Total	SO2	15562,54	3685,48				2125,762					29,221847

Total uncertainties	**Overall uncertainty in the year (%):**	**46,106**	**Trend uncertainty (%):**	**5,406**

Uncertainty estimation, NO_x

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions

		Input data Gg Nox	Input data Gg Nox	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Nox	100118	64892	2	50	50,040	27,010	-0,048369332	0,3932	-2,418467	1,11202714	2,6618762
Other mobile sources	Nox	64933	55328	10	100	100,499	46,252	0,048472039	0,3352	4,8472039	4,74066642	6,7800666
Total	Nox	165051,4	120219,6				2868,796					53,054889
Total uncertainties					**Overall uncertainty i the year (%):**		**53,561**			**Trend uncertainty (%):**		**7,284**

Uncertainty estimation, NMVOC

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data Gg NMVOC	Input data Gg NMVOC	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	NMVOC	80774	31861	2	50	50,040	28,599	-0,137139269	0,3222	-6,856963	0,9112682	6,9172507
Other mobile sources	NMVOC	18119	23887	10	100	100,499	43,061	0,138006553	0,2415	13,800655	3,41592117	14,217124
Total	NMVOC	98892,78	55748,24				2672,180					249,97496
Total uncertainties					**Overall uncertainty i the year (%):**		**51,693**			**Trend uncertainty (%):**		**15,811**

Uncertainty estimation, CO

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data Gg CO	Input data Gg CO	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	CO	467744	274460	2	50	50,040	36,451	-0,066509707	0,4864	-3,325485	1,37563514	3,598781
Other mobile sources	CO	96570	102321	10	100	100,499	27,292	0,066946423	0,1813	6,6946423	2,56424812	7,1689332
Total	CO	564314,5	376781,6				2073,520					64,344828
Total uncertainties					**Overall uncertainty i the year (%):**		**45,536**			**Trend uncertainty (%):**		**8,022**

Uncertainty estimation, NH_3

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data Gg NH3	Input data Gg NH3	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	NH3	128	2489	2	1000	1000,002	997,537	0,824958413	18,5204	824,95841	52,3835647	826,61988
Other mobile sources	NH3	6	6	10	1000	1000,050	2,465	-0,832423701	0,0458	-832,4237	0,64712897	832,42395
Total	NH3	134,4	2495,29				995086,843					1376230,1

Total uncertainties	**Overall uncertainty i the year (%):**	**997,540**	**Trend uncertainty (%):**	**1173,128**

Uncertainty estimation, TSP

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data Gg TSP	Input data Gg TSP	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	TSP	5735	3473	2	50	50,040	23,055	-0,061272408	0,3310	-3,06362	0,93623934	3,2034847
Other mobile sources	TSP	4759	4065	10	100	100,499	54,195	0,061329121	0,3874	6,1329121	5,4790356	8,2238945
Total	TSP	10493,35	7538,81				3468,670					77,894755

Total uncertainties	**Overall uncertainty i the year (%):**	**58,895**	**Trend uncertainty (%):**	**8,826**

Uncertainty estimation, Arsenic

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	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	%	%	%	%	%	%	%	%	%
Road Transportation	Arsenic	0	0	2	1000	1000,002	0,000	0	0,0000	0	0	0
Other mobile sources	Arsenic	62	38	10	1000	1000,050	1000,050	0	0,6067	0	8,58010936	8,5801094
Total	Arsenic	62,04	37,64				1000100,000					73,618277
Total uncertainties					**Overall uncertainty i the year (%):**		**1000,050**			**Trend uncertainty (%):**		**8,580**

Uncertainty estimation, Cadmium

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	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	%	%	%	%	%	%	%	%	%
Road Transportation	Cadmium	29	37	2	1000	1000,002	754,757	0,099333062	0,8445	99,333062	2,38850649	99,361774
Other mobile sources	Cadmium	15	12	10	1000	1000,050	245,257	-0,099660528	0,2744	-99,66053	3,88052261	99,736048
Total	Cadmium	44,17	49,42				629808,676					19820,041

Total uncertainties	**Overall uncertainty i the year (%):**	**793,605**	**Trend uncertainty (%):**	**140,784**

Uncertainty estimation, Chromium

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Chromium	147	187	2	1000	1000,002	753,809	0,10319751	0,8381	103,19751	2,37055301	103,22473
Other mobile sources	Chromium	76	61	10	1000	1000,050	246,205	-0,103527402	0,2737	-103,5274	3,87109439	103,59975
Total	Chromium	222,63	247,53				628844,949					21388,254
Total uncertainties					**Overall uncertainty i the year (%):**		**792,997**			**Trend uncertainty (%):**		**146,247**

Uncertainty estimation, Copper

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Copper	4999	6345	2	1000	1000,002	819,031	0,069755441	0,9636	69,755441	2,72550915	69,808666
Other mobile sources	Copper	1585	1402	10	1000	1000,050	180,980	-0,070116309	0,2129	-70,11631	3,01111748	70,180935
Total	Copper	6584,22	7746,54				703564,814					9798,6135

Total uncertainties			Overall uncertainty i the year (%):	838,788		Trend uncertainty (%):	98,988

Uncertainty estimation, Mercury

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Mercury	0	0	2	1000	1000,002	0,000	0	0,0000	0	0	0
Other mobile sources	Mercury	17	15	10	1000	1000,050	1000,050	0	0,9036	0	12,7781308	12,778131
Total	Mercury	16,9	15,27				1000100,000					163,28063

Total uncertainties			Overall uncertainty i the year (%):	1000,050		Trend uncertainty (%):	12,778

Uncertainty estimation, Nickel

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Nickel	206	261	2	1000	1000,002	150,460	0,047015809	0,0840	47,015809	0,23757573	47,016409

Other mobile sources	Nickel	2904	1475	10	1000	1000,050	849,583	-0,04661166	0,4743	-46,61166	6,70710576	47,091742
Total	Nickel	3110,04	1736,21				744428,812					4428,1748

Total uncertainties	**Overall uncertainty i the year (%):**	**862,803**	**Trend uncertainty (%):** **66,545**

Uncertainty estimation, Lead

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Lead	99034	57	2	1000	1000,002	47,161	-0,010343745	0,0005	-10,34374	0,00153956	10,343745
Other mobile sources	Lead	5005	1144	10	1000	1000,050	952,887	0,010437185	0,0110	10,437185	0,15552709	10,438344
Total	Lead	104038,9	1200,79				910217,809					215,95208

Total uncertainties	**Overall uncertainty i the year (%):**	**954,053**	**Trend uncertainty (%):** **14,695**

Uncertainty estimation, Selenium

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Selenium	29	37	2	1000	1000,002	307,706	0,081519879	0,2741	81,519879	0,77539565	81,523567
Other mobile sources	Selenium	107	84	10	1000	1000,050	692,330	-0,08106046	0,6168	-81,06046	8,72268133	81,528421
Total	Selenium	136,06	121,22				574003,041					13292,975
Total uncertainties					**Overall uncertainty i the year (%):**		**757,630**			**Trend uncertainty (%):**		**115,295**

Uncertainty estimation, Zinc

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Zinc	2941	3732	2	1000	1000,002	790,680	0,078717114	0,9167	78,717114	2,59268897	78,7598
Other mobile sources	Zinc	1131	988	10	1000	1000,050	209,332	-0,079066104	0,2427	-79,0661	3,43190262	79,14055
Total	Zinc	4071,46	4720,15				668994,587					12466,333

Total uncertainties	Overall uncertainty i the year (%):	817,921	Trend uncertainty (%):	111,653

Uncertainty estimation, Dioxins

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data g dioxins	Input data g dioxins	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Dioxins	1	0	2	1000	1000,002	562,501	-0,086988189	0,3176	-86,98819	0,89844156	86,992828
Other mobile sources	Dioxins	0	0	10	1000	1000,050	437,522	0,087365777	0,2471	87,365777	3,49393939	87,435614
Total	Dioxins	0,85	0,48				507832,906					15212,739

Total uncertainties	Overall uncertainty i the year (%):	712,624	Trend uncertainty (%):	123,340

Uncertainty estimation, Flouranthene

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Flouranthene	866	636	2	1000	1000,002	733,694	-0,032210878	0,5693	-32,21088	1,61027663	32,251103
Other mobile sources	Flouranthene	251	231	10	1000	1000,050	266,321	0,032387978	0,2066	32,387978	2,9224017	32,519557
Total	Flouranthene	1117,23	866,93				609233,572					2097,6552
Total uncertainties					**Overall uncertainty i the year (%):**		**780,534**			**Trend uncertainty (%):**		**45,800**

Uncertainty estimation, Benzo(b) flouranthene

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Benzo(b) flouranthene	68	62	2	1000	1000,002	727,900	0,009219334	0,6597	9,2193343	1,86598453	9,4062758

Other mobile sources	Benzo(b) flouran-thene	27	23	10	1000	1000,050	272,115	-0,009259354	0,2466	-9,259354	3,48769582	9,8944254
Total	Benzo(b) flouran-thene	94,6	85,74				603884,791					186,37768
Total uncertainties					**Overall uncertainty i the year (%):**		**777,100**			**Trend uncertainty (%):**		**13,652**

Uncertainty estimation, Benzo(k) flouranthene

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Benzo(k) flouran-thene	51	71	2	1000	1000,002	796,125	0,109027124	0,9749	109,02712	2,75738465	109,06199
Other mobile sources	Benzo(k) flouran-thene	21	18	10	1000	1000,050	203,887	-0,109475998	0,2497	-109,476	3,53065462	109,53292
Total	Benzo(k) flouran-thene	72,46	88,73				675384,437					23891,977
Total uncertainties					**Overall uncertainty i the year (%):**		**821,818**			**Trend uncertainty (%):**		**154,570**

Uncertainty estimation, Benzo(a) pyrene

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Benzo(a) pyrene	40	47	2	1000	1000,002	838,539	0,04832466	0,9278	48,32466	2,62408359	48,395853
Other mobile sources	Benzo(a) pyrene	10	9	10	1000	1000,050	161,471	-0,048608721	0,1786	-48,60872	2,52637835	48,674329
Total	Benzo(a) pyrene	50,66	56,05				729220,048					4711,349
Total uncertainties					**Overall uncertainty i the year (%):**		**853,944**			**Trend uncertainty (%):**		**68,639**

Uncertainty estimation, Benzo(g,h,i) perylene

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	Benzo(g,h,i) perylene	129	91	2	1000	1000,002	739,873	-0,033137167	0,5508	-33,13717	1,55797807	33,173771
Other mobile sources	Benzo(g,h,i) perylene	35	32	10	1000	1000,050	260,142	0,033325464	0,1937	33,325464	2,73882107	33,437819
Total	Benzo(g,h,i) perylene	164,77	122,67				615085,341					2218,5868

Total uncertainties	**Overall uncertainty i the year (%):**	**784,274**	**Trend uncertainty (%):**	**47,102**

Uncertainty estimation, indeno(1,2,3-c,d) pyrene

Source category	Gas	Base year emission	Year t emission	Activity data uncertainty	Emission factor uncertainty	Combined uncertainty	Combined uncertainty as % of total national emissions in year t	Type A sensitivity	Type B sensitivity	Uncertainty in trend in national emissions introduced by emission factor uncertainty	Uncertainty in trend in national emissions introduced by activity data uncertainty	Uncertainty introduced into the trend in total national emissions
		Input data kg	Input data kg	Input data %	Input data %	%	%	%	%	%	%	%
Road Transportation	indeno(1,2,3-c,d) pyrene	53	52	2	1000	1000,002	698,493	0,010676068	0,6727	10,676068	1,90261334	10,844278
Other mobile sources	indeno(1,2,3-c,d) pyrene	24	22	10	1000	1000,050	301,523	-0,010715942	0,2904	-10,71594	4,10637293	11,475788
Total	indeno(1,2,3-c,d) pyrene	77,11	74,26				578809,020					249,29207

Total uncertainties	**Overall uncertainty i the year (%):**	**760,795**	**Trend uncertainty (%):**	**15,789**

Annex 2C

Agriculture

Annex 2C.1 Background information - NH_3 from Manure Management

1. N-excretion

In Table 2C.1 is given the average N-excretion for each NFR livestock category from 1990 to 2003. Notice that each livestock category is an aggregated average of different subcategories (see table 6.2 in chapter 6). The N-excretion is based on information from the Danish Institute of Agricultural Science.

Table 2C.1 Nitrogen excretion rates in average, 1990 – 2003 (NRF)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
							Kg N/head/year							
Livestock categories:														
Dairy cattle	129.49	128.63	127.76	126.89	126.06	125.22	125.09	124.94	124.82	124.60	125.31	125.31	127.16	127.04
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	37.56	37.64	37.56
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	16.95	16.95
Goats	21.18	21.33	21.47	21.61	21.76	21.90	20.11	18.32	16.53	14.75	16.95	16.95	16.36	16.36
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	43.31
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	9.72	9.63
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	0.58	0.64
Fur farming	4.90	4.83	4.80	4.75	4.70	4.65	4.66	4.65	4.64	4.63	4.63	4.62	4.61	4.61
							M kg N/year							
N-excretion, total	293	291	293	293	283	274	275	274	279	270	270	275	277	273

2. Stable system

A systematic statement of the stabling of husbandry does not exist and the stabling is therefore based on estimate from the Danish Agricultural Advisory Centre (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 years new stables have been build and for most of these new stables tied-up stables are replaced by bigger stables with loose-holding. In 1990 79% of the dairy cattle were kept in tied-up stables and in 2002 the part is reduced to 26%. 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 2C.2 the distribution of stable type for dairy cattle and slaughtering pigs from 1990-2003 is listed.

Table 2C.2 The percentage distribution of stable type – Dairy cattle and slaughtering pigs 1990 - 2003

Distribution of stable type	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
							Per-cent							
Dairy cattle														
Tied-up stables	79	78	77	76	74	73	72	66	60	60	46	40	35	26
Loose-holdings with beds	57	57	58	58	59	59	60	57	54	54	62	61	62	60
Deep litter	14	15	16	17	17	18	19	23	27	27	37	40	43	47
Slaughtering pigs														
Full slatted floor	51	56	60	60	60	60	60	60	60	60	58	57	56	55
Partly slatted floor	23	21	20	21	23	24	25	26	28	29	31	33	34	35
Solid floor	22	19	15	14	12	11	9	8	6	5	5	4	4	4
Deep litter	4	4	5	4	4	3	3	2	2	1	1	1	1	1

3. Emission of ammonia

3.1 Stable

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 2C.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 slaugthering pigs.

Livestock category	Manure system	Manure type	Ammonia emission
			pct NH_3-N of N ab 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

3.2 Storage

Livestock manure is collected either as solid manure or as slurry depending on stable type. In Table 2C.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, investigations show that that slurry tanks were incompletely covered earlier (COWI 2000), which result in a higher ammonia emission. In 2003 it is assumed that 5% of the tanks with pig slurry and 2% of tanks with cattle slurry are incompletely covered. This information has been incorporated in the emission inventory.

Table 2C.4 Emission factors for storage (Poulsen et al, 2001).

	Liquid manure	Slurry	Solid manure	Deep litter	
Animal category	**Loss of NH_3-N in % of N ab stable**				
Cattle	2.0	2.1	5.0	8.8	
Swine	2.0	2.4	25.0	12.5	Sows
	2.0	2.4	25.0	25.0	Piglets
	2.0	2.4	25.0	18.8	Slaughter pigs
Poultry	-	2.0	5.0	9.5	Hens and pullet
	-	-	-	12.8	Broilers
	-	-	-	15.0	Turkey, geese and ducks
Fur farming	0	2.0	15.0	-	
Sheep/goats	-	-	-	5.0	
Horses	-	-	-	5.0	

3.3 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 2003 the emission factor for solid and liquid manure is estimated to 11% and 5% 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 2C.5 background information for 2003 are given.

Table 2C.5 Estimate for application method, time of spreading and time before the manure is incorporated in the soil 2003 (Based on note from the Organisation Danish Agriculture 2002)

Application methods 2003	Time of spreading	Percentage distribution of manure	Time before incorporation in soil			
			0	< 6 hours	>6 hours	not incorporated
Liquid manure						
Incorporated	winter-spring	19	19	-	-	-
Incorporated	summer-autumn	5	5	-	-	-
Trailing horses	winter-spring	59	-	14	4	41
Trailing horses	spring-summer	3	-	-	-	3
Trailing horses	late summer-autumn	10	-	5	-	5
Broad spreading	winter-spring	4	-	2	-	2
Broad spreading	spring-summer	-	-	-	-	-
Broad spreading	late summer-autumn	-	-	-	-	-
Total		100	24	21	4	51
Solid manure						
Broad spreading	winter-spring	80	-	54	15	11
Broad spreading	spring-summer	0	-	-	-	-
Broad spreading	late summer-autumn	20	-	15	1	4
Total		100	-	69	16	15

Annex 2C.2 Background information - NH_3 from Agricultural Soils

1. Crops

In the Danish emission inventory it is chosen to include NH_3 emission from crops, despite the uncertainties related to this emission source. 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 can be a volatilisation between 0-5 kg NH_3-N per hectare (Schjoerring and Mattsson 2001). Until more precisely data are available an average emission of 5 kg NH_3-N for cash crops and 3 kg NH_3-N for grass is used in the Danish inventory. However, as for the emission ceiling given in the Gothenburg-Protocol and the EU NEC Directive the emission from crops is not taken into account.

Table 2C.6 Emission factor used to estimate the emission of ammonia from crops

Emission factor	Crops
	kg N/ha
Cash crops, beets and silage maize	5
Grass/clover in rotation	3
Permanent grass	3
Set-a side	0

2. Synthetic fertiliser

Since the beginning of the 1990s there has been a significant decrease in use of synthetic fertiliser. This is due to requirements to utilising of nitrogen in manure as outlined for example in the Ac-

tion Plan on the Aquatic Environment. Further, the use of different fertiliser types has changed. At present, urea constitutes less than 1% of the total nitrogen used as fertiliser (Table 2C.7). It is estimated that 2.2% of the total nitrogen used in synthetic fertiliser is emitted as ammonia in 2003. It means the implied emission factor for 2003 is 2.2% compared to 10% in the EMEP-CLRTAP Guidebook.

Data on the use of synthetic fertiliser is based on the sale estimations collected by the Danish Plant Directorate (2003). 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 2003 and emission factors.

Synthetic fertiliser year 2002	**Emission factor[1]**	**Consumption[2] Mio. kg N**
Fertiliser type		
Calcium and boron calcium nitrate	0.02	0.3
Ammonium sulphate	0.05	2.9
Calcium ammonium nitrate and other nitrate types	0.02	84.5
Ammonium nitrate	0.02	13.2
Liquid ammonia	0.01	5.8
Urea	0.15	0.5
Other nitrogen fertiliser	0.05	10.1
NPK-fertiliser	0.02	72.3
Diammonphosphate	0.05	0.4
Other NP fertiliser types	0.02	5.5
NK fertiliser	0.02	5.8
Emission of NH_3-N from synthetic fertiliser	0.02	201.2

[1] Danish Institute of Agricultural Sciences (Sommer *et al*. 1992, 1994 and 1996)
[2] The Danish Plant Directorate

3. 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 NH_3 (Jarvis *et al*. 1998a, Jarvis *et al*. 1989b and Bussink 1994). The emission factor is used on all animal categories.

4. Ammonia treated straw

Ammonia is used for conservation of straw for feeding. Investigations show that 80-90% of the supplied ammonia (given in NH_3-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 NH_3-N). Information on ammonia used for treatment of straw is collected from ammonia suppliers.

As for the emission ceiling given in the Gothenburg-Protocol and the EU NEC Directive the emission from ammonia treated straw is not taken into account.

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