

# Annual European Community Greenhouse Gas Inventory 1990-1996

Submission to the Secretariat of the UNFCCC

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# 1. Introduction

This greenhouse gas inventory is submitted to the Secretariat of the United Nations Framework Convention on Climate Change by the European Community as a Party to the Convention. The report provides data on emissions from sources and removals by sinks of greenhouse gases in the European Community in the period 1990 to 1996.

In recognition of the special structure of the European Community as the only regional economic integration organisation to have joined the UNFCCC as a Party according to Article 22 of the Convention, the European Community reports on greenhouse gas inventories within the area covered by its Member States, by means of this report on the (European Community or EU15) inventory as well as by means of reports on the inventories of each of the individual Member States. The fifteen EC Member States are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

This European Community inventory was prepared on the basis of national Member States' inventory data for all of the European Community's Member States, as available to the European Commission by April 1999 . It contains annual EC and Member State inventories for 1990, 1994, 1995, and 1996.

The EC inventory data for the years reported in this submission (1990, 1994, 1995, 1996) are revised and updated data and replace earlier data reported by the European Community, in particular the greenhouse gas inventory data in the *Second Communication from the European Community under the UN Framework Convention on Climate Change* (chapter 4: EC Inventory of Greenhouse Gas Emissions and Removals, and the Annex "Member States Inventories 1990-1995").

## **2. Method of Reporting**

This EC greenhouse gas inventory for the period 1990 to 1996 was compiled according to the recommendations for inventories set out in the Revised Guidelines for the Preparation of National Communications by Parties Included in Annex I to the Convention (adopted as an Annex to Decision 9/CP.2) and the IPCC 1996 Guidelines for National Greenhouse Gas Inventories, which specify the reporting obligations resulting from Articles 4 and 12 of the UNFCCC.

The tables in this report present greenhouse gas emission data for the Member States as well as for the Community as a whole (EU15) in the format of the IPCC Table 7A - Summary Report for National Greenhouse Gas Inventories of the revised 1996 guidelines.

### **3. Data Basis of the European Community Inventory**

The task of compiling the European Community (EU15) greenhouse gas inventory, based on the individual Member States' inventories, is fulfilled by the European Commission assisted by the European Environment Agency (EEA) and its European Topic Centre on Air Emissions (ETC/AE). The collection of the Member States greenhouse gas inventory data is organised within the framework laid down in the 1993 *Council Decision on the Monitoring Mechanism of Community CO<sub>2</sub> and other Greenhouse Gas Emissions* (Council Decision 93/389/EEC). The two main sources of inventory data available for the compilation of the European Community Greenhouse Gas Inventory are data reported by the Member States to the Directorate General XI of the European Commission under the Monitoring Mechanism and the Member States' national communications and annual submissions to the Secretariat of the UNFCCC.

When compiling the Member States' data into a EC inventory, the EEA and ETC/AE depend on the availability of the relevant national inventories. Where such national inventories were not or only partly available for the years 1995 and 1996 to the European Commission (and EEA) by April 1999, emissions as reported for the most recent previous year were taken as a first estimate for the missing year. This was done in order to compile the required EC inventory containing estimates for all 15 Member States in Annex A. For the reported period, the latest Member States' emission data available for the compilation of this EC inventory are as follows :

EC Member State	Inventory data
Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Luxembourg, the Netherlands, Sweden, and the United Kingdom	1996
Italy and Spain	1995
Portugal	1994

The European Community inventory therefore includes tables on national greenhouse gas inventories for each Member State for the years 1990, 1994, 1995 (as available), and 1996 (as available) in Annex B, as well as currently best available estimates of EU15 totals for the years 1990, 1994, 1995, and 1996.

More complete and reliable EC (EU15) inventories for the years 1995 and 1996 and, if needed revised for the base year, will be compiled when the required national inventories of all EU Member States are available to the European Commission. Subsequently, these new EC inventories will be made available by the Commission to the UNFCCC Secretariat. These inventories will take into account the results of the work in 1999 and beyond on the revision of the UNFCCC Guidelines for the preparation of national communications by Parties included in Annex 1 to the convention (including reporting guidelines for inventories) as well as the *Council Decision amending*

*Decision 93/389/EEC for a Monitoring Mechanism of Community CO<sub>2</sub> and other Greenhouse Gas Emissions, adopted on 12 April 1999.*

## **Annex A**

### **IPCC Standard Data Tables for the European Community (EU15) (revised 1996 guidelines)**

## EU15 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
EU15 1990	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>3,458,405</b>	<b>286,846</b>	<b>23,074</b>	<b>1,261</b>	<b>13,350</b>	<b>50,155</b>	<b>15,034</b>
1 Energy	3,163,304	-	5,333	172	13,083	45,973	9,024
A Fuel Combustion	3,141,345	-	836	172	13,058	45,831	7,636
1 Energy Industries	1,150,888	-	54	64	2,935	1,020	98
2 Manufacturing Industries and Construction	636,820	-	64	36	1,606	3,487	145
3 Transport	694,747	-	251	37	7,069	32,842	6,320
4 Other Sectors	635,610	-	461	35	1,311	8,313	1,044
5 Other	23,287	-	4	1	137	169	29
B Fugitive Emissions from Fuels	21,960	-	4,497	1	25	142	1,388
1 Solid Fuels	4,416	-	2,935	-	2	59	14
2 Oil and Natural Gas	17,584	-	1,562	1	23	83	1,375
2 Industrial Processes	150,957	-	21	359	187	2,687	818
A Mineral Products	96,302	-	0	-	43	21	23
B Chemical Industry	10,568	-	6	319	78	41	370
C Metal Production	24,423	-	8	0	21	2,407	20
D Other Production	5,928	-	-	-	1	8	172
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	3,822	-	-	-	14	4	63
3 Solvent and Other Product Use	5,479	-	-	9	0	2	4,182
4 Agriculture	-	-	9,280	667	27	839	293
A Enteric Fermentation	-	-	6,770	-	-	-	-
B Manure Management	-	-	2,039	43	-	-	1
C Rice Cultivation	-	-	116	1	-	-	-
D Agricultural Soils	-	-	312	624	6	-	208
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	43	0	21	839	83
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	129,895	286,846	301	39	3	121	605
A Changes in Forest and Other Woody Biomass Stocks	84,430	248,362	-	-	-	-	-
B Forest and Grassland Conversion	35,310	-	14	0	3	121	8
C Abandonment of Managed Lands	-	1,524	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	6,488	4,415	-	-	-	-	9
E Other	3,667	32,546	288	39	-	-	589
6 Waste	7,344	-	8,139	12	50	533	113
A Solid Waste Disposal on Land	1	-	6,840	-	5	59	53
B Wastewater Handling	1,352	-	646	6	-	-	5
C Waste Incineration	5,891	-	25	2	42	461	33
D Other	100	-	630	3	1	13	20
7 Other	1,327	-	2	4	-	-	-
<b>Memo Items:</b>							
International Bunkers	169,640	-	12	4	1,512	306	182
Aviation	60,209	-	5	1	251	188	65
Marine	109,430	-	6	4	1,260	120	117
CO <sub>2</sub> Emissions from Biomass	118,014	-	-	-	-	-	-

Note: EU15 emissions are the sum of Member States' emissions.

The sum of the sub-categories does not always correspond to the category totals due to incomplete data delivered by Member States (in particular for category 2 "Industrial Processes").

## EU15 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
EU15 1994	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>3,334,835</b>	<b>320,407</b>	<b>20,886</b>	<b>1,179</b>	<b>11,939</b>	<b>42,376</b>	<b>13,373</b>
1 Energy	3,056,774	-	4,328	185	11,714	38,799	7,713
A Fuel Combustion	3,037,554	-	732	184	11,692	38,689	6,442
1 Energy Industries	1,062,542	-	59	60	2,295	926	103
2 Manufacturing Industries and Construction	590,954	-	57	31	1,431	3,456	143
3 Transport	740,822	-	218	56	6,614	27,354	5,219
4 Other Sectors	629,151	-	383	32	1,245	6,837	948
5 Other	14,083	-	15	4	104	119	28
B Fugitive Emissions from Fuels	19,223	-	3,596	1	24	109	1,272
1 Solid Fuels	213	-	1,938	-	1	55	8
2 Oil and Natural Gas	19,009	-	1,658	1	23	56	1,264
2 Industrial Processes	138,573	-	24	316	145	2,359	734
A Mineral Products	87,020	-	0	-	42	21	19
B Chemical Industry	8,882	-	6	274	33	23	345
C Metal Production	19,576	-	7	0	18	2,052	17
D Other Production	6,540	-	-	-	1	8	173
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	3,048	-	-	-	6	43	26
3 Solvent and Other Product Use	5,123	-	0	9	0	2	3,931
4 Agriculture	-	-	8,876	613	18	508	225
A Enteric Fermentation	-	-	6,415	8	-	-	-
B Manure Management	-	-	1,969	39	-	-	1
C Rice Cultivation	-	-	164	1	-	-	-
D Agricultural Soils	-	-	302	565	6	-	185
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	27	0	11	508	39
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	126,027	320,407	311	41	2	76	643
A Changes in Forest and Other Woody Biomass Stocks	82,957	274,892	-	-	-	-	-
B Forest and Grassland Conversion	33,088	-	9	0	2	76	3
C Abandonment of Managed Lands	-	7,360	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	6,315	5,611	-	1	-	-	9
E Other	3,667	32,546	302	40	-	-	631
6 Waste	7,530	-	7,345	12	59	631	129
A Solid Waste Disposal on Land	1	-	6,533	-	6	64	61
B Wastewater Handling	1,412	-	683	10	-	-	6
C Waste Incineration	6,117	-	31	3	49	553	38
D Other	-	-	98	0	4	15	24
7 Other	809	-	2	4	-	-	-
<b>Memo Items:</b>							
International Bunkers	185,027	-	1,858	7	1,571	382	191
Aviation	73,464	-	1,856	3	313	254	80
Marine	111,198	-	4	4	1,259	128	111
CO <sub>2</sub> Emissions from Biomass	102,792	-	-	-	-	-	-

Note: EU15 emissions are the sum of Member States' emissions.

The sum of the sub-categories does not always correspond to the category totals due to incomplete data delivered by Member States (in particular for category 2 "Industrial Processes").

## EU15 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
EU15 1995 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	EMISSION ESTIMATES (Gg)					
		CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVO <sub>C</sub>
<b>Total National Emissions and Removals</b>	<b>3,376,579</b>	<b>312,576</b>	<b>20,663</b>	<b>1,189</b>	<b>11,692</b>	<b>41,335</b>	<b>12,932</b>
1 Energy	3,093,619	-	4,346	193	11,469	37,796	7,369
A Fuel Combustion	3,074,410	-	742	192	11,444	37,689	6,202
1 Energy Industries	1,078,063	-	64	65	2,237	920	105
2 Manufacturing Industries and Construction	589,548	-	59	33	1,468	3,491	143
3 Transport	751,550	-	219	59	6,384	26,321	5,001
4 Other Sectors	640,660	-	397	34	1,262	6,852	940
5 Other	14,599	-	3	1	95	105	14
B Fugitive Emissions from Fuels	19,211	-	3,603	1	24	107	1,167
1 Solid Fuels	3,690	-	1,991	-	2	61	9
2 Oil and Natural Gas	15,560	-	1,612	1	23	46	1,158
2 Industrial Processes	139,752	-	22	314	147	2,374	721
A Mineral Products	92,239	-	0	-	43	21	18
B Chemical Industry	9,325	-	6	273	31	25	339
C Metal Production	20,762	-	6	0	19	2,092	17
D Other Production	1,087	-	-	-	1	1	175
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	2,828	-	-	-	8	45	28
3 Solvent and Other Product Use	5,164	-	-	9	0	2	3,859
4 Agriculture	-	-	8,774	614	17	457	221
A Enteric Fermentation	-	-	6,228	-	-	-	-
B Manure Management	-	-	2,102	38	-	-	1
C Rice Cultivation	-	-	119	0	-	-	-
D Agricultural Soils	-	-	302	576	6	-	184
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	24	0	10	457	36
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	129,212	312,576	305	42	3	87	627
A Changes in Forest and Other Woody Biomass Stocks	85,879	268,698	-	-	-	-	-
B Forest and Grassland Conversion	33,045	-	10	0	3	87	4
C Abandonment of Managed Lands	-	8,081	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	6,621	5,309	1	0	-	-	9
E Other	3,667	30,489	294	42	-	-	614
6 Waste	7,797	-	7,215	12	57	618	132
A Solid Waste Disposal on Land	4	-	6,411	-	6	64	61
B Wastewater Handling	1,556	-	678	10	-	-	6
C Waste Incineration	6,235	-	31	3	49	540	38
D Other	2	-	95	0	2	15	29
7 Other	1,032	-	2	4	-	-	1
<b>Memo Items:</b>							
International Bunkers	190,117	-	1,983	9	1,626	393	197
Aviation	77,184	-	1,856	3	337	263	85
Marine	112,932	-	4	3	1,288	129	113
CO <sub>2</sub> Emissions from Biomass	107,504	-	-	-	-	-	-

Note: EU15 emissions are the sum of Member States' emissions. 1994 data used for Portugal.

The sum of the sub-categories does not always correspond to the category totals due to incomplete data delivered by Member States (in particular for category 2 "Industrial Processes").

## EU15 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

EU15 1996	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>3,466,381</b>	<b>319,451</b>	<b>20,170</b>	<b>1,227</b>	<b>11,120</b>	<b>39,742</b>	<b>12,222</b>
1 Energy	3,186,521	-	4,234	200	10,904	36,247	6,978
A Fuel Combustion	3,166,545	-	769	199	10,880	36,141	5,830
1 Energy Industries	1,104,689	-	69	67	2,173	857	108
2 Manufacturing Industries and Construction	586,374	-	58	32	1,403	3,429	144
3 Transport	759,677	-	215	66	5,929	24,725	4,616
4 Other Sectors	700,609	-	423	33	1,298	7,044	949
5 Other	15,294	-	3	2	75	85	15
B Fugitive Emissions from Fuels	19,978	-	3,465	1	24	106	1,148
1 Solid Fuels	3,555	-	1,818	-	1	60	9
2 Oil and Natural Gas	16,443	-	1,648	1	23	45	1,138
2 Industrial Processes	137,622	-	21	325	140	2,332	689
A Mineral Products	94,000	-	0	-	43	22	17
B Chemical Industry	9,482	-	6	287	33	25	329
C Metal Production	20,590	-	6	0	23	2,114	18
D Other Production	1,139	-	-	-	1	1	212
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	4,672	-	-	-	19	42	26
3 Solvent and Other Product Use	5,007	-	-	9	0	2	3,699
4 Agriculture	-	-	8,752	634	17	457	168
A Enteric Fermentation	-	-	6,207	-	-	-	-
B Manure Management	-	-	2,100	41	-	-	1
C Rice Cultivation	-	-	119	0	-	-	-
D Agricultural Soils	-	-	302	593	6	-	123
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	24	0	10	457	36
G Other	-	-	-	-	-	-	9
5 Land-Use Change & Forestry	128,509	319,451	305	43	3	87	557
A Changes in Forest and Other Woody Biomass Stocks	85,251	275,677	-	1	-	-	-
B Forest and Grassland Conversion	32,730	-	10	0	3	87	4
C Abandonment of Managed Lands	-	7,886	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	6,861	5,399	-	0	-	-	-
E Other	3,667	30,489	296	42	-	-	553
6 Waste	7,629	-	6,856	12	55	617	130
A Solid Waste Disposal on Land	1	-	6,052	-	6	64	60
B Wastewater Handling	1,440	-	678	10	-	-	6
C Waste Incineration	6,188	-	30	3	47	539	37
D Other	-	-	96	0	2	15	27
7 Other	1,032	-	2	4	-	-	1
<b>Memo Items:</b>							
International Bunkers	149,695	-	1,984	9	1,617	410	200
Aviation	116,929	-	1,856	3	341	265	86
Marine	86,765	-	5	4	1,260	119	110
CO <sub>2</sub> Emissions from Biomass	170,663	-	-	-	-	-	-

Note: EU15 emissions are the sum of Member States' emissions. 1994 data used for Portugal.  
1995 data used for Italy and Spain

The sum of the sub-categories does not always correspond to the category totals due to incomplete data delivered by Member States (in particular for category 2 "Industrial Processes").

## **Annex B**

### **IPCC Standard Data Tables for EC Member States (revised 1996 guidelines)**

## Austria 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Austria 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	
<b>Total National Emissions and Removals</b>	<b>62,042</b>	<b>13,300</b>	<b>459.8</b>	<b>6.5</b>	<b>194.0</b>	<b>1,285.8</b>	<b>350.4</b>
1 Energy	48,759	-	24.4	1.9	169.7	1,009.3	157.6
A Fuel Combustion	46,620	-	20.2	1.9	165.4	1,004.6	148.8
1 Energy Industries	12,363	-	0.2	0.1	14.8	0.9	0.4
2 Manufacturing Industries and Construction	7,432	-	0.5	0.1	19.7	6.7	1.2
3 Transport	13,569	-	3.3	1.0	98.6	484.3	96.2
4 Other Sectors	13,256	-	16.2	0.6	32.4	512.6	51.0
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	2,139	-	4.3	0.0	4.3	4.7	8.8
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	2,139	-	4.3	0.0	4.3	4.7	8.8
2 Industrial Processes	12,703	-	0.1	0.6	17.9	270.6	16.1
A Mineral Products	3,370	-	0.0	0.0	7.6	20.6	5.5
B Chemical Industry	423	-	0.1	0.6	4.1	12.5	8.3
C Metal Production	8,852	-	0.0	0.0	5.2	236.7	0.6
D Other Production	58	-	0.0	0.0	1.0	0.7	1.8
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	541	-	0.0	0.8	0.0	0.0	173.7
4 Agriculture	0	-	208.1	3.3	6.2	1.5	2.4
A Enteric Fermentation	0	-	146.0	0.0	0.0	0.0	0.0
B Manure Management	0	-	26.5	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	35.5	3.3	6.2	0.0	2.2
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.1	0.0	0.0	1.5	0.2
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	-	13,300	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	-	13,300	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	-	0.0	0.0	0.0	0.0	0.0
E Other	0	-	0.0	0.0	0.0	0.0	0.0
6 Waste	38	-	227.2	0.0	0.2	4.4	0.6
A Solid Waste Disposal on Land	0	-	193.2	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	13.7	0.0	0.0	0.0	0.0
C Waste Incineration	38	-	0.2	0.0	0.2	4.4	0.6
D Other	0	-	20.0	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	930	-	0.0	0.0	4.9	1.6	0.6
Aviation	930	-	0.0	0.0	4.9	1.6	0.6
Marine	0	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	13,384	-	-	-	-	-	-

Ref.: "Austria's Annual National Greenhouse Gas Inventory 1980 - 1997, Submission to the Secretariat of the UNFCCC", prepared by the Austrian Federal Environment Agency for the Federal Ministry for the Environment, Youth and Family Affairs, Vienna, April 1999.

## Austria 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Austria 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>61,068</b>	<b>14,726</b>	<b>451.1</b>	<b>7.3</b>	<b>183.2</b>	<b>1,129.8</b>	<b>273.5</b>	
1 Energy	49,347	-	20.9	2.7	159.4	814.1	117.6	
A Fuel Combustion	46,937	-	16.1	2.7	156.0	813.6	110.5	
1 Energy Industries	9,395	-	0.1	0.1	7.2	0.7	0.2	
2 Manufacturing Industries and Construction	6,661	-	0.3	0.2	14.3	4.3	0.5	
3 Transport	16,127	-	2.7	1.8	101.6	371.9	68.5	
4 Other Sectors	14,753	-	13.1	0.6	33.0	436.6	41.3	
5 Other	0	-	0.0	0.0	0.0	0.0	0.0	
B Fugitive Emissions from Fuels	2,410	-	4.8	0.0	3.4	0.5	7.2	
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0	
2 Oil and Natural Gas	2,410	-	4.8	0.0	3.4	0.5	7.2	
2 Industrial Processes	11,196	-	0.1	0.6	17.4	309.7	21.0	
A Mineral Products	3,415	-	0.0	0.0	7.5	21.3	6.4	
B Chemical Industry	405	-	0.1	0.6	4.4	11.1	12.3	
C Metal Production	7,325	-	0.0	0.0	4.4	276.6	0.5	
D Other Production	51	-	0.0	0.0	1.1	0.7	1.7	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	0	-	0.0	0.0	0.0	0.0	0.0	
3 Solvent and Other Product Use	411	-	0.0	0.8	0.0	0.0	0.0	131.8
4 Agriculture	0	-	208.7	3.3	6.1	1.5	2.4	
A Enteric Fermentation	0	-	145.9	0.0	0.0	0.0	0.0	
B Manure Management	0	-	27.4	0.0	0.0	0.0	0.0	
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0	
D Agricultural Soils	0	-	35.3	3.3	6.1	0.0	2.2	
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0	
F Field Burning of Agricultural Residues	0	-	0.1	0.0	0.0	1.5	0.2	
G Other	0	-	0.0	0.0	0.0	0.0	0.0	
5 Land-Use Change & Forestry	-	14,726	0.0	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	-	14,726	0.0	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	-	0.0	0.0	0.0	0.0	0.0	0.0
E Other	0	-	0.0	0.0	0.0	0.0	0.0	0.0
6 Waste	114	-	221.3	0.0	0.2	4.5	0.7	
A Solid Waste Disposal on Land	0	-	186.8	0.0	0.0	0.0	0.0	
B Wastewater Handling	0	-	14.3	0.0	0.0	0.0	0.0	
C Waste Incineration	114	-	0.2	0.0	0.2	4.5	0.7	
D Other	0	-	20.0	0.0	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>								
International Bunkers	1,187	-	0.0	0.0	6.3	2.0	0.8	
Aviation	1,187	-	0.0	0.0	6.3	2.0	0.8	
Marine	0	-	0.0	0.0	0.0	0.0	0.0	
CO <sub>2</sub> Emissions from Biomass	13,408	-	-	-	-	-	-	-

Ref.: "Austria's Annual National Greenhouse Gas Inventory 1980 - 1997, Submission to the Secretariat of the UNFCCC", prepared by the Austrian Federal Environment Agency for the Federal Ministry for the Environment, Youth and Family Affairs, Vienna, April 1999.

## Austria 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Austria 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>62,427</b>	<b>13,576</b>	<b>450.4</b>	<b>7.3</b>	<b>169.6</b>	<b>1,012.8</b>	<b>269.3</b>
1 Energy	51,117	-	22.4	2.7	147.0	768.4	112.5
A Fuel Combustion	48,765	-	17.2	2.7	143.6	767.8	106.1
1 Energy Industries	10,935	-	0.1	0.1	6.8	0.9	0.2
2 Manufacturing Industries and Construction	8,210	-	0.3	0.2	16.5	5.4	0.6
3 Transport	15,431	-	2.5	1.8	89.3	342.4	60.6
4 Other Sectors	14,190	-	14.3	0.6	31.1	419.2	44.8
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	2,352	-	5.2	0.0	3.4	0.6	6.4
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	2,352	-	5.2	0.0	3.4	0.6	6.4
2 Industrial Processes	10,780	-	0.1	0.5	16.3	238.5	21.0
A Mineral Products	2,730	-	0.0	0.0	6.2	18.5	6.3
B Chemical Industry	430	-	0.1	0.5	4.4	11.1	12.3
C Metal Production	7,571	-	0.0	0.0	4.6	208.1	0.5
D Other Production	50	-	0.0	0.0	1.1	0.8	1.8
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	414	-	0.0	0.8	0.0	0.0	132.8
4 Agriculture	0	-	208.1	3.3	6.1	1.5	2.3
A Enteric Fermentation	0	-	145.8	0.0	0.0	0.0	0.0
B Manure Management	0	-	27.3	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	34.9	3.3	6.1	0.0	2.2
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.1	0.0	0.0	1.5	0.2
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	-	13,576	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	-	13,576	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	-	0.0	0.0	0.0	0.0	0.0
E Other	0	-	0.0	0.0	0.0	0.0	0.0
6 Waste	117	-	219.8	0.0	0.2	4.4	0.7
A Solid Waste Disposal on Land	0	-	185.2	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	14.3	0.0	0.0	0.0	0.0
C Waste Incineration	117	-	0.2	0.0	0.2	4.4	0.7
D Other	0	-	20.0	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	1,316	-	0.0	0.0	7.0	2.3	0.9
Aviation	1,316	-	0.0	0.0	7.0	2.3	0.9
Marine	0	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	14,685	-	-	-	-	-	-

Ref: "Austria's Annual National Greenhouse Gas Inventory 1980 - 1997, Submission to the Secretariat of the UNFCCC", prepared by the Austrian Federal Environment Agency for the Federal Ministry for the Environment, Youth and Family Affairs, Vienna, April 1999.

## Austria 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Austria 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>64,026</b>	<b>13,753</b>	<b>446.6</b>	<b>7.3</b>	<b>161.3</b>	<b>1,019.8</b>	<b>260.2</b>
1 Energy	52,553	-	22.3	2.7	139.2	750.4	102.4
A Fuel Combustion	49,868	-	16.7	2.7	135.7	749.9	96.9
1 Energy Industries	12,179	-	0.1	0.1	9.8	1.2	0.2
2 Manufacturing Industries and Construction	7,755	-	0.3	0.2	15.0	5.5	0.5
3 Transport	15,357	-	2.2	1.8	86.2	306.8	53.4
4 Other Sectors	14,577	-	14.1	0.6	24.6	436.4	42.8
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	2,685	-	5.6	0.0	3.5	0.4	5.5
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	2,685	-	5.6	0.0	3.5	0.4	5.5
2 Industrial Processes	10,938	-	0.1	0.5	15.9	263.6	21.0
A Mineral Products	2,727	-	0.0	0.0	6.0	19.1	6.3
B Chemical Industry	430	-	0.1	0.5	4.4	11.1	12.3
C Metal Production	7,732	-	0.0	0.0	4.4	232.6	0.5
D Other Production	50	-	0.0	0.0	1.1	0.8	1.8
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	417	-	0.0	0.8	0.0	0.0	133.7
4 Agriculture	0	-	206.0	3.3	6.1	1.5	2.3
A Enteric Fermentation	0	-	144.2	0.0	0.0	0.0	0.0
B Manure Management	0	-	26.8	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	34.9	3.3	6.1	0.0	2.2
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.1	0.0	0.0	1.5	0.2
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	-	13,753	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	-	13,753	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	-	0.0	0.0	0.0	0.0	0.0
E Other	0	-	0.0	0.0	0.0	0.0	0.0
6 Waste	119	-	218.2	0.0	0.2	4.4	0.7
A Solid Waste Disposal on Land	0	-	183.6	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	14.3	0.0	0.0	0.0	0.0
C Waste Incineration	119	-	0.2	0.0	0.2	4.4	0.7
D Other	0	-	20.0	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	1,453	-	0.0	0.0	7.7	2.5	1.0
Aviation	1,453	-	0.0	0.0	7.7	2.5	1.0
Marine	0	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	15,542	-	-	-	-	-	-

Ref.: "Austria's Annual National Greenhouse Gas Inventory 1980 - 1997, Submission to the Secretariat of the UNFCCC", prepared by the Austrian Federal Environment Agency for the Federal Ministry for the Environment, Youth and Family Affairs, Vienna, April 1999.

## HFC/PFC/SF<sub>6</sub> emissions in Austria 1990, 1994-96

Austria 1990 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>						
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Austria 1994 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>						
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Austria 1995 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>						
2 Industrial Processes	-	<b>0.421</b>	-	<b>0.002</b>	-	<b>0.035</b>
A Mineral Products	-	0.421	-	0.002	-	0.035
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	0.011
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.421	-	0.002	-	0.024
G Other	-	-	-	-	-	-

Austria 1996 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	-	P	A
<b>Total National Emissions and Removals</b>						
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Ref.: "Austria's Annual National Greenhouse Gas Inventory 1980 - 1997, Submission to the Secretariat of the UNFCCC", prepared by the Austrian Federal Environment Agency for the Federal Ministry for the Environment, Youth and Family Affairs, Vienna, April 1999.

## Belgium 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Belgium 1990	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>116,090</b>	<b>2,057</b>	<b>634.0</b>	<b>30.8</b>	<b>339.0</b>	<b>1,127.0</b>	<b>331.0</b>
1 Energy	105,919	-	68.5	8.3	330.0	1,094.0	204.0
A Fuel Combustion	105,919	-	15.5	7.7	330.0	1,094.0	178.0
1 Energy Industries	28,140	-	0.3	2.1	72.0	16.0	1.0
2 Manufacturing Industries and Construction	31,027	-	1.4	1.9	49.0	11.0	3.0
3 Transport	19,964	-	9.3	0.9	194.0	974.0	166.0
4 Other Sectors	26,262	-	4.4	2.8	15.0	93.0	7.0
5 Other	526	-	-	-	0.0	0.0	0.0
B Fugitive Emissions from Fuels	-	-	53.1	0.6	-	-	26.0
1 Solid Fuels	-	-	14.5	-	-	-	-
2 Oil and Natural Gas	-	-	38.6	0.6	-	-	26.0
2 Industrial Processes	9,188	-	3.5	11.5	6.0	17.0	37.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	696	-	-	11.5	4.0	9.0	31.0
C Metal Production	1,718	-	3.5	-	-	-	4.0
D Other Production	4,810	-	-	-	-	7.0	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	1,963	-	-	-	2.0	-	1.0
3 Solvent and Other Product Use	-	-	-	-	-	-	90.0
4 Agriculture	-	-	388.0	10.9	-	-	1.0
A Enteric Fermentation	-	-	373.5	-	-	-	-
B Manure Management	-	-	-	-	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	14.5	10.9	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	2,057	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	2,057	-	-	-	-	-
6 Waste	983	-	174.0	0.1	3.0	16.0	0.0
A Solid Waste Disposal on Land	-	-	172.9	-	-	-	-
B Wastewater Handling	-	-	-	-	-	-	-
C Waste Incineration	983	-	1.1	0.1	3.0	16.0	0.0
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	15,726	-	-	-	-	-	-
Aviation	2,370	-	-	-	-	-	-
Marine	13,356	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: *Inventory of greenhouse gas emissions in Belgium 1990-1995/1996*, Report to the Conference of the Parties to the Convention on Climate Change (UNFCCC), Ministry of Social Affairs, Public Health and the Environment, Brussels, June 1998.

## Belgium 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Belgium 1994	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>121,297</b>	<b>2,057</b>	<b>635.3</b>	<b>32.3</b>	<b>345.0</b>	<b>1,252.0</b>	<b>321.0</b>
1 Energy	109,748	-	58.7	9.0	337.0	1,183.0	201.0
A Fuel Combustion	109,748	-	14.0	8.4	337.0	1,183.0	173.0
1 Energy Industries	28,953	-	0.3	2.5	72.0	27.0	1.0
2 Manufacturing Industries and Construction	29,236	-	0.7	1.8	59.0	173.0	4.0
3 Transport	21,877	-	8.6	1.2	190.0	884.0	160.0
4 Other Sectors	29,373	-	4.4	2.9	15.0	99.0	8.0
5 Other	309	-	-	-	-	-	-
B Fugitive Emissions from Fuels	-	-	44.7	0.6	-	-	29.0
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	-	-	44.7	0.6	-	-	29.0
2 Industrial Processes	10,456	-	3.2	12.3	5.0	50.0	35.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	626	-	-	12.3	1.0	-	30.0
C Metal Production	1,617	-	3.2	-	-	-	3.0
D Other Production	5,473	-	-	-	-	7.0	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	2,741	-	-	-	4.0	43.0	1.0
3 Solvent and Other Product Use	-	-	-	-	-	-	84.0
4 Agriculture	-	-	389.2	10.8	-	-	1.0
A Enteric Fermentation	-	-	374.7	0.0	-	-	-
B Manure Management	-	-	-	-	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	14.4	10.8	-	-	1.0
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	2,057	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	2,057	-	-	-	-	-
6 Waste	1,093	-	184.2	0.1	3.0	19.0	0.0
A Solid Waste Disposal on Land	-	-	183.5	-	-	-	-
B Wastewater Handling	-	-	-	-	-	-	-
C Waste Incineration	1,093	-	0.7	0.1	3.0	19.0	0.0
D Other	-	-	-	0.0	-	-	0.0
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	16,021	-	-	-	-	-	-
Aviation	2,300	-	-	-	-	-	-
Marine	13,721	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: *Inventory of greenhouse gas emissions in Belgium 1990-1995/1996, Report to the Conference of the Parties to the Convention on Climate Change (UNFCCC)*, Ministry of Social Affairs, Public Health and the Environment, Brussels, June 1998.

## Belgium 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Belgium 1995	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>121,832</b>	<b>2,057</b>	<b>593.9</b>	<b>34.9</b>	<b>333.3</b>	<b>1,424.4</b>	<b>300.5</b>
1 Energy	109,936	-	48.6	8.6	321.9	1,289.8	185.9
A Fuel Combustion	109,936	-	15.0	8.0	320.9	1,287.8	156.1
1 Energy Industries	29,142	-	0.2	2.2	62.1	24.4	0.9
2 Manufacturing Industries and Construction	27,908	-	0.9	1.9	66.3	343.8	2.2
3 Transport	21,834	-	9.6	1.1	176.7	835.4	145.4
4 Other Sectors	30,831	-	4.3	2.8	15.8	84.2	7.5
5 Other	221	-	-	-	-	-	-
B Fugitive Emissions from Fuels	-	-	33.6	0.6	1.0	2.0	29.8
1 Solid Fuels	-	-	0.8	-	1.0	2.0	1.0
2 Oil and Natural Gas	-	-	32.8	0.6	-	-	28.8
2 Industrial Processes	10,706	-	2.1	13.8	7.9	126.9	33.1
A Mineral Products	5,923	-	-	-	-	2.6	-
B Chemical Industry	669	-	-	13.8	1.6	0.5	28.6
C Metal Production	1,604	-	2.1	-	0.4	79.2	1.6
D Other Production	-	-	-	-	-	-	0.5
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	2,510	-	-	-	5.9	44.7	2.4
3 Solvent and Other Product Use	-	-	-	0.2	-	-	80.5
4 Agriculture	-	-	357.3	9.8	-	-	0.8
A Enteric Fermentation	-	-	212.3	-	-	-	-
B Manure Management	-	-	130.6	0.5	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	14.4	9.4	-	-	0.8
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	2,057	-	2.5	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	2,057	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	0.0	-	-	-
E Other	-	-	-	2.5	-	-	-
6 Waste	1,190	-	185.8	0.1	3.4	7.7	0.1
A Solid Waste Disposal on Land	-	-	184.1	-	-	-	-
B Wastewater Handling	-	-	-	-	-	-	-
C Waste Incineration	1,190	-	0.3	0.1	3.4	7.7	0.1
D Other	-	-	1.4	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	15,556	-	-	-	1.2	2.5	0.7
Aviation	2,601	-	-	-	1.2	2.5	0.7
Marine	12,955	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: *Inventory of greenhouse gas emissions in Belgium 1990-1995/1996, Report to the Conference of the Parties to the Convention on Climate Change (UNFCCC), Ministry of Social Affairs, Public Health and the Environment, Brussels, June 1998.*

## Belgium 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Belgium 1996	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>128,547</b>	<b>2,057</b>	<b>590.6</b>	<b>35.2</b>	<b>328.0</b>	<b>1,415.2</b>	<b>301.0</b>
1 Energy	116,069	-	48.4	8.6	318.3	1,283.2	186.6
A Fuel Combustion	116,069	-	14.8	7.9	317.3	1,281.2	154.3
1 Energy Industries	29,195	-	0.2	2.1	61.1	28.4	0.9
2 Manufacturing Industries and Construction	28,681	-	0.9	1.9	63.2	343.6	2.2
3 Transport	22,389	-	9.3	1.1	175.9	816.1	143.0
4 Other Sectors	35,548	-	4.3	2.7	17.1	93.1	8.2
5 Other	256	-	-	-	-	-	-
B Fugitive Emissions from Fuels	-	-	33.6	0.7	1.0	2.0	32.2
1 Solid Fuels	-	-	0.8	-	1.0	2.0	1.0
2 Oil and Natural Gas	-	-	32.8	0.7	-	-	31.2
2 Industrial Processes	11,287	-	2.1	14.0	6.3	124.6	33.1
A Mineral Products	5,923	-	-	-	-	2.6	-
B Chemical Industry	669	-	-	14.0	1.6	0.5	28.6
C Metal Production	1,612	-	2.1	-	0.4	79.2	1.5
D Other Production	-	-	-	-	-	-	2.9
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	3,083	-	-	-	4.2	42.4	-
3 Solvent and Other Product Use	-	-	-	0.2	-	-	80.4
4 Agriculture	-	-	354.4	9.8	-	-	0.8
A Enteric Fermentation	-	-	209.6	-	-	-	-
B Manure Management	-	-	130.4	0.5	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	14.4	9.4	-	-	0.8
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	2,057	-	2.5	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	2,057	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	0.0	-	-	-
E Other	-	-	-	2.5	-	-	-
6 Waste	1,190	-	185.8	0.1	3.4	7.4	0.1
A Solid Waste Disposal on Land	-	-	184.1	-	-	-	-
B Wastewater Handling	-	-	-	-	-	-	-
C Waste Incineration	1,190	-	0.3	0.1	3.4	7.4	0.1
D Other	-	-	1.4	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	18,308	-	0.0	0.0	1.2	2.5	0.7
Aviation	2,932	-	0.0	0.0	1.2	2.5	0.7
Marine	15,376	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: *Inventory of greenhouse gas emissions in Belgium 1990-1995/1996, Report to the Conference of the Parties to the Convention on Climate Change (UNFCCC), Ministry of Social Affairs, Public Health and the Environment, Brussels, June 1998.*

## Denmark 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Denmark 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>52,277</b>	<b>924</b>	<b>421.0</b>	<b>34.0</b>	<b>280.0</b>	<b>785.0</b>	<b>179.0</b>
1 Energy	51,138	-	22.0	2.0	279.0	785.0	124.0
A Fuel Combustion	50,898	-	10.0	2.0	278.0	751.0	116.0
1 Energy Industries	25,865	-	1.0	1.0	96.0	38.0	1.0
2 Manufacturing Industries and Construction	5,776	-	1.0	0.0	19.0	9.0	2.0
3 Transport	10,474	-	2.0	0.0	125.0	552.0	101.0
4 Other Sectors	8,664	-	6.0	0.0	37.0	153.0	12.0
5 Other	119	-	0.0	0.0	1.0	0.0	0.0
B Fugitive Emissions from Fuels	240	-	12.0	0.0	1.0	34.0	8.0
1 Solid Fuels	-	-	3.0	-	-	33.0	-
2 Oil and Natural Gas	240	-	9.0	0.0	1.0	1.0	8.0
2 Industrial Processes	1,006	-	-	-	1.0	-	-
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	133	-	-	-	-	-	43.0
4 Agriculture	-	-	329.0	33.0	-	-	2.0
A Enteric Fermentation	-	-	167.0	-	-	-	-
B Manure Management	-	-	161.0	-	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	33.0	-	-	2.0
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	924	-	-	-	-	9.0
A Changes in Forest and Other Woody Biomass Stocks	-	924	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	9.0
E Other	-	-	-	-	-	-	-
6 Waste	-	-	71.0	-	-	-	-
A Solid Waste Disposal on Land	-	-	71.0	-	-	-	-
B Wastewater Handling	-	-	-	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
Correction for electricity exchange	6,253	-	-	-	-	-	-
Correction for the impact of climate variation	1,703	-	-	-	-	-	-
International Bunkers	4,986	-	0.0	0.0	85.0	9.0	3.0
Aviation	1,967	-	-	-	IE	IE	IE
Marine	3,019	-	-	-	85.0	9.0	3.0
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Denmark's Second National Communication on Climate Change", Ministry of Environment and Energy, Danish Environmental Protection Agency, 1997.

Note: Denmark delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Denmark 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Denmark 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>63,344</b>	<b>956</b>	<b>428.0</b>	<b>33.0</b>	<b>272.0</b>	<b>704.0</b>	<b>166.0</b>
1 Energy	61,899	-	27.0	3.0	271.0	704.0	113.0
A Fuel Combustion	61,117	-	10.0	3.0	269.0	662.0	97.0
1 Energy Industries	35,213	-	1.0	1.0	106.0	48.0	1.0
2 Manufacturing Industries and Construction	6,481	-	1.0	0.0	24.0	12.0	3.0
3 Transport	11,345	-	2.0	1.0	103.0	422.0	77.0
4 Other Sectors	8,020	-	6.0	0.0	35.0	180.0	15.0
5 Other	58	-	0.0	0.0	1.0	1.0	0.0
B Fugitive Emissions from Fuels	782	-	17.0	0.0	3.0	41.0	16.0
1 Solid Fuels	0	-	6.0	-	0.0	40.0	0.0
2 Oil and Natural Gas	782	-	11.0	0.0	3.0	2.0	16.0
2 Industrial Processes	1,318	-	1.0	-	1.0	0.0	1.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	127	-	-	-	-	-	41.0
4 Agriculture	-	-	326.0	30.0	-	-	2.0
A Enteric Fermentation	-	-	155.0	-	-	-	-
B Manure Management	-	-	171.0	-	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	30.0	-	-	2.0
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	956	-	1.0	-	-	9.0
A Changes in Forest and Other Woody Biomass Stocks	-	956	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	1.0	-	-	9.0
E Other	-	-	-	-	-	-	-
6 Waste	-	-	74.0	-	-	-	1.0
A Solid Waste Disposal on Land	-	-	72.0	-	-	-	-
B Wastewater Handling	-	-	2.0	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	1.0
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
Correction for electricity exchange	-3,932	-	-	-	-	-	-
Correction for the impact of climate variation	193	-	-	-	-	-	-
International Bunkers	6,736	-	0.2	0.4	123.3	11.8	4.2
Aviation	1,910	-	0.1	0.0	7.2	0.5	0.6
Marine	4,825	-	0.1	0.3	116.1	11.3	3.6
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Denmark's Second National Communication on Climate Change", Ministry of Environment and Energy, Danish Environmental Protection Agency, 1997.

Note: Denmark delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Denmark 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Denmark 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>59,532</b>	<b>964</b>	<b>430.0</b>	<b>33.0</b>	<b>253.0</b>	<b>702.0</b>	<b>162.0</b>	
1 Energy	58,096	-	29.0	3.0	252.0	702.0	109.0	
A Fuel Combustion	57,748	-	11.0	3.0	250.0	656.0	93.0	
1 Energy Industries	31,482	-	1.0	1.0	91.0	49.0	2.0	
2 Manufacturing Industries and Construction	6,039	-	1.0	0.0	23.0	10.0	3.0	
3 Transport	11,370	-	2.0	1.0	100.0	389.0	71.0	
4 Other Sectors	8,718	-	7.0	0.0	35.0	206.0	17.0	
5 Other	139	-	0.0	0.0	2.0	2.0	0.0	
B Fugitive Emissions from Fuels	348	-	17.0	0.0	2.0	45.0	17.0	
1 Solid Fuels	-	-	6.0	-	0.0	44.0	0.0	
2 Oil and Natural Gas	348	-	11.0	0.0	2.0	1.0	17.0	
2 Industrial Processes	1,311	-	1.0	-	1.0	0.0	1.0	
A Mineral Products	-	-	-	-	-	-	-	
B Chemical Industry	-	-	-	-	-	-	-	
C Metal Production	-	-	-	-	-	-	-	
D Other Production	-	-	-	-	-	-	-	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	-	-	-	-	-	-	-	
3 Solvent and Other Product Use	125	-	-	-	-	-	-	40.0
4 Agriculture	-	-	327.0	30.0	-	-	-	2.0
A Enteric Fermentation	-	-	155.0	-	-	-	-	
B Manure Management	-	-	172.0	-	-	-	-	
C Rice Cultivation	-	-	-	-	-	-	-	
D Agricultural Soils	-	-	-	30.0	-	-	-	2.0
E Prescribed Burning of Savannas	-	-	-	-	-	-	-	
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-	
G Other	-	-	-	-	-	-	-	
5 Land-Use Change & Forestry	-	964	1.0	-	-	-	-	9.0
A Changes in Forest and Other Woody Biomass Stocks	-	964	-	-	-	-	-	
B Forest and Grassland Conversion	-	-	-	-	-	-	-	
C Abandonment of Managed Lands	-	-	-	-	-	-	-	
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	1.0	-	-	-	-	9.0
E Other	-	-	-	-	-	-	-	
6 Waste	-	-	74.0	-	-	-	-	
A Solid Waste Disposal on Land	-	-	72.0	-	-	-	-	
B Wastewater Handling	-	-	2.0	-	-	-	-	
C Waste Incineration	-	-	-	-	-	-	-	
D Other	-	-	-	-	-	-	-	
7 Other	-	-	-	-	-	-	-	
<b>Memo Items:</b>								
Correction for electricity exchange	-615	-	-	-	-	-	-	-
Correction for the impact of climate variation	0	-	-	-	-	-	-	-
International Bunkers	7,080	-	0.0	0.0	130.0	13.0	4.0	
Aviation	2,062	-	0.0	0.0	7.0	1.0	1.0	
Marine	5,018	-	0.0	0.0	122.0	12.0	4.0	
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-	-

Ref.: "Denmark's Second National Communication on Climate Change", Ministry of Environment and Energy, Danish Environmental Protection Agency, 1997.

Note: Denmark delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Denmark 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Denmark 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>73,236</b>	<b>981</b>	<b>425.2</b>	<b>33.9</b>	<b>291.2</b>	<b>615.9</b>	<b>139.4</b>
1 Energy	71,784	-	30.8	3.1	290.7	615.9	108.5
A Fuel Combustion	71,406	-	13.3	3.1	288.7	570.7	90.2
1 Energy Industries	44,020	-	1.6	1.4	128.7	10.7	1.8
2 Manufacturing Industries and Construction	6,312	-	0.7	0.2	24.8	12.8	3.2
3 Transport	11,748	-	3.2	1.1	97.6	381.8	66.8
4 Other Sectors	9,273	-	7.9	0.3	36.6	164.9	18.3
5 Other	53	-	0.0	0.0	1.0	0.5	0.1
B Fugitive Emissions from Fuels	378	-	17.5	0.0	2.0	45.1	18.2
1 Solid Fuels	0	-	6.3	0.0	-	43.9	0.0
2 Oil and Natural Gas	378	-	11.2	0.0	2.0	1.3	18.2
2 Industrial Processes	1,388	-	0.1	0.0	0.5	0.0	0.1
A Mineral Products	1,388	-	0.1	-	-	0.0	0.0
B Chemical Industry	0	-	0.0	0.0	0.5	0.0	0.0
C Metal Production	0	-	-	-	0.0	0.0	0.0
D Other Production	-	-	-	-	0.0	0.0	0.1
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	64	-	-	0.0	-	-	20.6
4 Agriculture	0	-	321.2	30.2	0.0	0.0	10.3
A Enteric Fermentation	-	-	153.8	-	-	-	-
B Manure Management	-	-	167.3	0.0	-	-	-
C Rice Cultivation	-	-	0.0	-	-	-	-
D Agricultural Soils	-	-	-	30.2	-	-	1.3
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	-
F Field Burning of Agricultural Residues	-	-	0.0	0.0	0.0	0.0	-
G Other	-	-	0.0	0.0	-	-	8.9
5 Land-Use Change & Forestry	-	981	0.0	0.6	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	-	981	-	0.6	-	-	-
B Forest and Grassland Conversion	-	-	0.0	0.0	0.0	0.0	-
C Abandonment of Managed Lands	-	-	-	0.0	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	0.0	-	-	-
E Other	-	-	0.0	0.0	0.0	0.0	-
6 Waste	0	-	73.2	0.0	0.0	0.0	0.0
A Solid Waste Disposal on Land	-	-	71.6	-	-	-	-
B Wastewater Handling	-	-	1.6	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	0.0	0.0	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	6,970	-	0.2	0.4	140.9	12.4	4.4
Aviation	2,152	-	0.1	0.1	9.0	1.1	0.8
Marine	4,818	-	0.1	0.3	131.9	11.2	3.5
CO <sub>2</sub> Emissions from Biomass	0	-	-	-	-	-	-

Ref.: National Inventory Data on Emissions of Greenhouse Gases for Denmark 1996, Danish Submission of the UNFCCC inventory under the Monitoring Mechanism, Ministry of Environment and Energy - Danish Environmental Protection Agency, 22 June 1998

## HFC/PFC/SF<sub>6</sub> emissions in Denmark 1990, 1994-96

Denmark 1990	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.000</b>	-	-	-	-	<b>0.015</b>
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	0.000	-	NE	-	0.015	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Denmark 1994	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.600</b>	-	-	-	<b>0.021</b>	-
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	0.600	-	NE	-	0.021	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Denmark 1995	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.750</b>	<b>0.197</b>	<b>0.002</b>	<b>0.0002</b>	<b>0.014</b>	<b>0.009</b>
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	0.750	-	0.002	-	0.017	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Denmark 1996	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.290</b>	-	<b>0.0004</b>	-	<b>0.006</b>
2 Industrial Processes	-	0.290	-	0.0004	-	0.006
A Mineral Products	-	-	-	-	-	0.004
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	0.0004
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.290	-	-	-	0.001
G Other	-	-	-	-	-	0.0002

Ref.: "Denmark's Second National Communication on Climate Change", Ministry of Environment and Energy, Danish Environmental Protection Agency, 1997 and National Inventory Data on Emissions of Greenhouse Gases for Denmark 1996, Danish Submission of the UNFCCC inventory under the Monitoring Mechanism, Ministry of Environment and Energy - Danish Environmental Protection Agency., 22 June 1998

## Finland 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Finland 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>59,300</b>	<b>30,600</b>	<b>358.1</b>	<b>18.6</b>	<b>295.0</b>	<b>487.0</b>	<b>213.0</b>
1 Energy	57,400	-	20.5	5.5	291.0	484.0	135.0
A Fuel Combustion	53,900	-	19.3	5.5	291.0	484.0	126.0
1 Energy Industries	18,400	-	1.2	1.2	64.0	9.0	0.0
2 Manufacturing Industries and Construction	14,100	-	1.9	1.2	41.0	32.0	0.0
3 Transport	11,900	-	3.3	1.7	160.0	368.0	91.0
4 Other Sectors	7,300	-	11.3	0.7	8.0	61.0	35.0
5 Other	2,200	-	1.6	0.7	18.0	14.0	0.0
B Fugitive Emissions from Fuels	3,500	-	1.2	-	-	-	9.0
1 Solid Fuels	3,500	-	1.0	-	-	-	-
2 Oil and Natural Gas	40	-	0.2	-	-	-	9.0
2 Industrial Processes	1,200	-	3.8	3.0	4.0	3.0	19.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	-	-	-	-	-	-	57.0
4 Agriculture	NE	-	93.8	10.1	-	-	-
A Enteric Fermentation	-	-	83.0	-	-	-	-
B Manure Management	-	-	10.8	NE	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	NE	-	-	10.1	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	30,600	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	30,600	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	-	-	240.0	-	-	-	2.0
A Solid Waste Disposal on Land	-	-	230.0	-	-	-	-
B Wastewater Handling	-	-	10.0	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	-	-	-	-	-
7 Other	600	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	2,800	-	1.3	1.2	22.0	-	-
Aviation	1,000	-	IE	IE	IE	-	-
Marine	1,800	-	1.3	1.2	22.0	-	-
CO <sub>2</sub> Emissions from Biomass	18,400	-	-	-	-	-	-

Ref: "Finland's Second Report under the Framework Convention on Climate Change", April 1997 and (draft) Finland's National Greenhouse Gas inventory to the UNFCCC Years 1990, 1995-1997, Submission under the Monitoring Mechanism, Ministry of the Environment, 3 March 1999.

Note: Finland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Finland 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Finland 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>59,253</b>	<b>16,800</b>	<b>245.0</b>	<b>18.0</b>	<b>282.0</b>	<b>443.0</b>	<b>165.0</b>
1 Energy	58,413	-	16.0	6.0	279.0	433.0	110.0
A Fuel Combustion	58,337	-	16.0	6.0	279.0	433.0	97.0
1 Energy Industries	24,526	-	IE	IE	54.0	7.0	0.0
2 Manufacturing Industries and Construction	14,098	-	IE	IE	42.0	41.0	1.0
3 Transport	11,414	-	3.0	2.0	146.0	317.0	53.0
4 Other Sectors	6,706	-	IE	IE	20.0	48.0	32.0
5 Other	1,593	-	13.0	4.0	16.0	21.0	11.0
B Fugitive Emissions from Fuels	80	-	-	-	-	-	13.0
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	80	-	-	-	-	-	13.0
2 Industrial Processes	840	-	4.0	3.0	2.0	10.0	10.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	-	-	-	-	-	-	46.0
4 Agriculture	-	-	93.0	9.0	-	-	-
A Enteric Fermentation	-	-	83.0	8.0	-	-	-
B Manure Management	-	-	10.0	1.0	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	-	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	16,800	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	16,800	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	-	-	132.0	-	-	-	-
A Solid Waste Disposal on Land	-	-	122.0	-	-	-	-
B Wastewater Handling	-	-	10.0	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	2,120	-	1.0	1.0	25.0	8.0	4.0
Aviation	820	-	IE	IE	IE	IE	IE
Marine	1,300	-	1.0	1.0	25.0	8.0	4.0
CO <sub>2</sub> Emissions from Biomass	20,981	-	-	-	-	-	-

Ref.: "Finland's National Report under the United Nations Framework Convention on Climate Change", Ministry of the Environment, January 1995, and "Finland's Second Report under the Framework Convention on Climate Change", April 1997.

Note: Finland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Finland 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Finland 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>60,900</b>	<b>14,300</b>	<b>268.9</b>	<b>18.2</b>	<b>259.0</b>	<b>434.0</b>	<b>182.0</b>
1 Energy	59,400	-	22.8	6.3	257.0	424.0	121.0
A Fuel Combustion	55,900	-	21.7	6.3	257.0	424.0	113.0
1 Energy Industries	22,300	-	1.6	1.6	40.0	8.0	0.0
2 Manufacturing Industries and Construction	13,800	-	2.6	1.7	35.0	43.0	0.0
3 Transport	11,100	-	3.0	1.8	139.0	306.0	81.0
4 Other Sectors	7,100	-	13.2	0.7	26.0	46.0	32.0
5 Other	1,600	-	1.3	0.6	17.0	21.0	0.0
B Fugitive Emissions from Fuels	3,500	-	1.2	-	-	-	8.0
1 Solid Fuels	3,500	-	1.0	-	-	-	-
2 Oil and Natural Gas	40	-	0.2	-	-	-	8.0
2 Industrial Processes	800	-	3.8	2.6	2.0	10.0	13.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	-	-	-	-	-	-	46.0
4 Agriculture	NE	-	82.2	9.3	-	-	-
A Enteric Fermentation	-	-	72.2	-	-	-	-
B Manure Management	-	-	10.1	NE	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	NE	-	-	9.3	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	14,300	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	14,300	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	-	-	160.0	-	-	-	2.0
A Solid Waste Disposal on Land	-	-	150.0	-	-	-	IE
B Wastewater Handling	-	-	10.0	-	-	-	IE
C Waste Incineration	-	-	-	-	-	-	IE
D Other	-	-	-	-	-	-	2.0
7 Other	700	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	1,850	-	1.0	0.8	19.0	6.0	3.0
Aviation	850	-	IE	IE	IE	IE	IE
Marine	1,000	-	1.0	0.8	19.0	6.0	3.0
CO <sub>2</sub> Emissions from Biomass	23,000	-	-	-	-	-	-

Ref.: "Finland's Second Report under the Framework Convention on Climate Change", April 1997 and (draft) Finland's National Greenhouse Gas inventory to the UNFCCC Years 1990, 1995-1997, Submission under the Monitoring Mechanism, Ministry of the Environment, 3 March 1999.

Note: Finland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Finland 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Finland 1996 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)			CO	NMVOC
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>		
<b>Total National Emissions and Removals</b>	<b>66,400</b>	-	<b>269.9</b>	<b>18.5</b>	-	-	-
1 Energy	64,800	-	24.1	6.9	-	-	-
A Fuel Combustion	61,300	-	22.5	6.9	-	-	-
1 Energy Industries	27,400	-	1.9	2.6	-	-	-
2 Manufacturing Industries and Construction	13,500	-	2.6	1.6	-	-	-
3 Transport	11,000	-	2.9	1.8	-	-	-
4 Other Sectors	7,600	-	13.5	0.3	-	-	-
5 Other	1,900	-	1.5	0.6	-	-	-
B Fugitive Emissions from Fuels	3,500	-	1.6	-	-	-	-
1 Solid Fuels	3,500	-	1.0	-	-	-	-
2 Oil and Natural Gas	20	-	0.6	-	-	-	-
2 Industrial Processes	840	-	3.8	2.6	-	-	-
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	-	-	-	-	-	-	-
4 Agriculture	NE	-	82.1	9.0	-	-	-
A Enteric Fermentation	-	-	72.1	-	-	-	-
B Manure Management	-	-	10.1	NE	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	NE	-	-	9.0	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	NE	-	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	-	-	160.0	-	-	-	-
A Solid Waste Disposal on Land	-	-	150.0	-	-	-	-
B Wastewater Handling	-	-	10.0	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	-	-	-	-	-
7 Other	700	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	2,100	-	1.2	0.9	-	-	-
Aviation	IE	-	IE	IE	-	-	-
Marine	2,100	-	1.2	0.9	-	-	-
CO <sub>2</sub> Emissions from Biomass	22,900	-	-	-	-	-	-

Ref.: (draft) Finland's National Greenhouse Gas inventory to the UNFCCC Years 1990, 1995 - 1997, Submission under the Monitoring mechanism, Ministry of the Environment, 3 March 1999.

Note: Finland delivered data in accordance with the *1995 IPCC Guidelines*. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## HFC/PFC/SF<sub>6</sub> emissions in Finland 1990, 1994-96

Finland 1990	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.100</b>	-	NA	-	<b>0.004</b>	-
2 Industrial Processes	0.100	-	NA	-	0.004	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Finland 1994	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.061</b>	-	<b>0.00004</b>	-	<b>0.004</b>	-
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Finland 1995	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.110</b>	-	NA	-	<b>0.004</b>	-
2 Industrial Processes	0.110	-	NA	-	0.004	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Finland 1996	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.170</b>	-	NA	-	<b>0.005</b>	-
2 Industrial Processes	0.170	-	NA	-	0.005	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Ref: "Finland's National Report under the United Nations Framework Convention on Climate Change", Ministry of the Environment, January 1995, "Finland's Second Report under the Framework Convention on Climate Change", April 1997 and (draft) Finland's National Greenhouse Gas inventory to the UNFCCC Years 1990, 1995-1997, Submission under the Monitoring Mechanism, Ministry of the Environment, 3 March 1999.

## France 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
France 1990	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>478,001</b>	<b>117,609</b>	<b>3,017.7</b>	<b>308.7</b>	<b>1,952.5</b>	<b>10,397.7</b>	<b>2,971.5</b>
1 Energy	364,491	-	475.0	14.9	1,908.9	9,466.0	1,729.0
A Fuel Combustion	360,186	-	164.0	14.8	1,903.3	9,461.0	1,585.7
1 Energy Industries	65,495	-	2.2	2.2	156.6	16.4	3.6
2 Manufacturing Industries and Construction	77,747	-	7.6	4.4	244.6	669.1	21.6
3 Transport	123,111	-	23.8	4.0	1,130.9	6,819.2	1,268.1
4 Other Sectors	93,833	-	130.4	4.2	371.2	1,956.2	292.4
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	4,306	-	311.0	0.1	5.7	5.0	143.3
1 Solid Fuels	0	-	206.3	0.0	0.0	4.3	1.1
2 Oil and Natural Gas	4,306	-	104.7	0.1	5.7	0.8	142.3
2 Industrial Processes	20,948	-	2.6	90.0	23.6	648.6	93.2
A Mineral Products	13,352	-	0.0	0.0	0.0	0.0	1.8
B Chemical Industry	2,477	-	2.5	90.0	20.1	0.0	45.0
C Metal Production	4,388	-	0.1	0.0	3.3	648.6	2.6
D Other Production	551	-	0.0	0.0	0.1	0.0	43.7
E Production of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
F Consumption of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	2,072	-	0.0	1.9	0.0	0.0	664.7
4 Agriculture	0	-	1,630.1	181.1	0.0	0.0	20.9
A Enteric Fermentation	0	-	1,430.3	0.0	0.0	0.0	0.0
B Manure Management	0	-	168.3	10.5	0.0	0.0	0.0
C Rice Cultivation	0	-	8.6	0.2	0.0	0.0	0.0
D Agricultural Soils	0	-	22.9	170.4	0.0	0.0	20.9
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	87,293	117,609	94.7	17.8	1.5	52.9	436.5
A Changes in Forest and Other Woody Biomass Stocks	75,694	113,146	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	6,593	0	6.0	0.0	1.5	52.9	0.0
C Abandonment of Managed Lands	0	48	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	5,006	4,415	0.0	0.0	0.0	0.0	0.0
E Other	0	0	88.6	17.7	0.0	0.0	436.5
6 Waste	3,198	-	815.3	3.1	18.5	230.3	27.2
A Solid Waste Disposal on Land	0	-	778.0	0.0	0.0	0.0	7.6
B Wastewater Handling	1,352	-	12.3	2.0	0.0	0.0	3.1
C Waste Incineration	1,845	-	13.8	1.1	18.5	230.3	8.9
D Other	0	-	11.2	0.0	0.0	0.0	7.6
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	15,488	-	0.0	0.3	212.4	19.4	79.3
Aviation	7,351	-	0.0	0.0	57.6	17.3	8.5
Marine	8,136	-	0.0	0.3	154.8	2.1	70.8
CO <sub>2</sub> Emissions from Biomass	34,294	-	-	-	-	-	-

Ref.: Emission Inventories 1990 - 1996, Submission of 1990 to 1996 data to DGXI under the Monitoring Mechanism, Mission Interministérielle de l'Effet de Serre (MIES), 7 Oct 1998.

Note : emission data include DOMs and TOMs (overseas departments and territories).

## France 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

France 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>470,736</b>	<b>124,766</b>	<b>2,811.8</b>	<b>287.1</b>	<b>1,830.9</b>	<b>8,959.7</b>	<b>2,734.8</b>
1 Energy	362,833	-	472.0	16.8	1,794.6	8,068.7	1,549.0
A Fuel Combustion	358,326	-	162.1	16.7	1,790.0	8,064.4	1,424.2
1 Energy Industries	52,403	-	2.3	1.8	133.0	17.2	4.7
2 Manufacturing Industries and Construction	78,914	-	8.5	4.5	241.0	634.0	22.2
3 Transport	132,403	-	22.3	6.1	1,087.4	5,513.6	1,118.3
4 Other Sectors	94,606	-	129.0	4.3	328.7	1,899.7	279.1
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	4,506	-	309.9	0.1	4.6	4.2	124.8
1 Solid Fuels	0	-	212.9	0.0	0.0	3.5	0.9
2 Oil and Natural Gas	4,506	-	97.0	0.1	4.6	0.8	124.0
2 Industrial Processes	17,975	-	2.4	77.4	11.7	606.2	84.2
A Mineral Products	11,446	-	0.0	0.0	0.0	0.0	2.0
B Chemical Industry	2,324	-	2.4	77.4	8.5	0.0	37.6
C Metal Production	3,729	-	0.1	0.0	3.2	606.2	2.6
D Other Production	477	-	0.0	0.0	0.0	0.0	42.0
E Production of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
F Consumption of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	1,893	-	0.0	2.0	0.0	0.0	607.3
4 Agriculture	0	-	1,555.0	169.6	0.0	0.0	19.9
A Enteric Fermentation	0	-	1,351.0	0.0	0.0	0.0	0.0
B Manure Management	0	-	169.7	10.1	0.0	0.0	0.0
C Rice Cultivation	0	-	11.3	0.2	0.0	0.0	0.0
D Agricultural Soils	0	-	23.1	159.3	0.0	0.0	19.9
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	84,251	124,766	95.2	17.9	1.5	52.9	446.1
A Changes in Forest and Other Woody Biomass Stocks	72,613	119,423	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	6,593	0	6.0	0.0	1.5	52.9	0.0
C Abandonment of Managed Lands	0	48	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	5,045	5,295	0.0	0.0	0.0	0.0	0.0
E Other	0	-	89.1	17.8	0.0	0.0	446.1
6 Waste	3,784	-	687.2	3.5	23.1	232.0	28.3
A Solid Waste Disposal on Land	0	-	644.9	0.0	0.0	0.0	6.4
B Wastewater Handling	1,412	-	12.9	2.1	0.0	0.0	3.3
C Waste Incineration	2,372	-	15.7	1.4	23.1	232.0	9.2
D Other	0	-	13.7	0.0	0.0	0.0	9.4
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	16,639	-	0.0	0.2	209.1	24.0	71.7
Aviation	9,272	-	0.0	0.0	75.9	22.2	10.8
Marine	7,001	-	0.0	0.2	133.2	1.8	61.0
CO <sub>2</sub> Emissions from Biomass	35,906	-	-	-	-	-	-

Ref.: Emission Inventories 1990 - 1996, Submission of 1990 to 1996 data to DGXI under the Monitoring Mechanism, Mission Interministérielle de l'Effet de Serre (MIES), 7 Oct 1998.

Note: emission data include DOMs and TOMs (overseas departments and territories).

## France 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
France 1995 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
<b>Total National Emissions and Removals</b>	<b>480,639</b>	<b>126,355</b>	<b>2,785.9</b>	<b>292.7</b>	<b>1,863.7</b>	<b>8,633.6</b>	<b>2,666.0</b>
1 Energy	369,148	-	475.3	17.9	1,828.3	7,749.7	1,485.6
A Fuel Combustion	365,226	-	165.7	17.8	1,823.1	7,745.6	1,367.6
1 Energy Industries	55,104	-	2.2	1.9	144.6	15.4	4.4
2 Manufacturing Industries and Construction	79,302	-	7.7	4.4	291.7	634.7	29.3
3 Transport	134,137	-	21.0	7.1	1,039.4	5,106.4	1,043.2
4 Other Sectors	96,683	-	134.8	4.4	347.5	1,989.1	290.8
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	3,922	-	309.6	0.1	5.1	4.1	118.0
1 Solid Fuels	0	-	211.0	0.0	0.0	3.5	0.9
2 Oil and Natural Gas	3,922	-	98.6	0.1	5.1	0.7	117.1
2 Industrial Processes	18,576	-	2.7	80.4	11.1	599.1	84.3
A Mineral Products	11,323	-	0.0	0.0	0.0	0.0	2.0
B Chemical Industry	2,328	-	2.6	80.4	7.8	0.0	37.4
C Metal Production	4,428	-	0.1	0.0	3.3	599.1	2.6
D Other Production	498	-	0.0	0.0	0.0	0.0	42.4
E Production of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
F Consumption of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	1,908	-	0.0	2.0	0.0	0.0	612.3
4 Agriculture	0	-	1,564.0	171.1	0.0	0.0	19.6
A Enteric Fermentation	0	-	1,358.5	0.0	0.0	0.0	0.0
B Manure Management	0	-	171.8	10.1	0.0	0.0	0.0
C Rice Cultivation	0	-	10.6	0.2	0.0	0.0	0.0
D Agricultural Soils	0	-	23.1	160.8	0.0	0.0	19.6
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	87,220	126,355	95.3	17.9	1.5	52.9	435.9
A Changes in Forest and Other Woody Biomass Stocks	75,535	121,093	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	6,593	0	6.0	0.0	1.5	52.9	0.0
C Abandonment of Managed Lands	0	48	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	5,092	5,214	0.0	0.0	0.0	0.0	0.0
E Other	0	0	89.3	17.9	0.0	0.0	435.9
6 Waste	3,786	-	648.7	3.5	22.8	231.9	28.3
A Solid Waste Disposal on Land	0	-	605.7	0.0	0.0	0.0	6.0
B Wastewater Handling	1,426	-	13.0	2.1	0.0	0.0	3.2
C Waste Incineration	2,360	-	15.6	1.4	22.8	231.9	9.2
D Other	0	-	14.4	0.0	0.0	0.0	9.9
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	17,329	-	0.0	0.2	217.0	25.0	74.1
Aviation	10,113	-	0.0	0.0	79.7	23.2	11.3
Marine	7,216	-	0.0	0.2	137.3	1.9	62.8
CO <sub>2</sub> Emissions from Biomass	37,284	-	-	-	-	-	-

Ref.: Emission Inventories 1990 - 1996, Submission of 1990 to 1996 data to DGXI under the Monitoring Mechanism, Mission Interministérielle de l'Effet de Serre (MIES), 7 Oct 1998.

Note: emission data include DOMs and TOMs (overseas departments and territories).

## France 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
France 1996	EMISSION ESTIMATES (Gg)						NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>493,512</b>	<b>128,095</b>	<b>2,711.7</b>	<b>297.4</b>	<b>1,782.8</b>	<b>8,349.7</b>	<b>2,539.4</b>
1 Energy	383,715	-	441.1	19.3	1,747.3	7,490.0	1,415.9
A Fuel Combustion	379,711	-	177.9	19.2	1,741.9	7,486.0	1,301.3
1 Energy Industries	59,537	-	2.0	2.0	152.4	18.0	4.3
2 Manufacturing Industries and Construction	80,606	-	8.1	4.4	250.7	618.3	24.1
3 Transport	135,368	-	19.4	8.0	983.6	4,684.0	961.7
4 Other Sectors	104,199	-	148.4	4.8	355.2	2,165.7	311.1
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	4,005	-	263.2	0.1	5.4	4.0	114.6
1 Solid Fuels	0	-	160.8	0.0	0.0	3.4	0.8
2 Oil and Natural Gas	4,005	-	102.4	0.1	5.4	0.7	113.8
2 Industrial Processes	17,313	-	2.5	81.1	11.5	575.1	84.9
A Mineral Products	11,107	-	0.0	0.0	0.0	0.0	1.9
B Chemical Industry	2,443	-	2.5	81.1	8.2	0.0	37.5
C Metal Production	3,244	-	0.1	0.0	3.3	575.1	2.6
D Other Production	519	-	0.0	0.0	0.0	0.0	42.9
E Production of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
F Consumption of Halocarbons and Sulphur Hexafluoride	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	1,847	-	0.0	2.0	0.0	0.0	592.7
4 Agriculture	0	-	1,565.5	173.7	0.0	0.0	17.8
A Enteric Fermentation	0	-	1,358.2	0.0	0.0	0.0	0.0
B Manure Management	0	-	174.6	10.2	0.0	0.0	0.0
C Rice Cultivation	0	-	9.5	0.2	0.0	0.0	0.0
D Agricultural Soils	0	-	23.0	163.4	0.0	0.0	17.8
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	86,846	128,095	95.3	17.9	1.5	52.9	399.6
A Changes in Forest and Other Woody Biomass Stocks	74,907	122,743	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	6,593	0	6.0	0.0	1.5	52.9	0.0
C Abandonment of Managed Lands	0	48	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	5,346	5,304	0.0	0.0	0.0	0.0	0.0
E Other	0	0	89.3	17.9	0.0	0.0	399.6
6 Waste	3,791	-	607.3	3.5	22.5	231.7	28.5
A Solid Waste Disposal on Land	0	-	563.5	0.0	0.0	0.0	5.6
B Wastewater Handling	1,440	-	13.1	2.1	0.0	0.0	3.4
C Waste Incineration	2,351	-	15.5	1.4	22.5	231.7	9.2
D Other	0	-	15.2	0.0	0.0	0.0	10.1
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	18,154	-	0.0	0.2	227.5	26.0	77.6
Aviation	10,588	-	0.0	0.0	83.4	24.0	11.7
Marine	7,566	-	0.0	0.2	144.1	2.0	65.9
CO <sub>2</sub> Emissions from Biomass	39,883	-	-	-	-	-	-

Ref.: Emission Inventories 1990 - 1996, Submission of 1990 to 1996 data to DGXI under the Monitoring Mechanism, Mission Interministérielle de l'Effet de Serre (MIES), 7 Oct 1998

Note: emission data include DOMs and TOMs (overseas departments and territories).

## HFC/PFC/SF<sub>6</sub> emissions in France 1990, 1994-96

France 1990	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.256</b>	-	<b>0.432</b>	-	<b>0.102</b>
2 Industrial Processes	-	0.256	-	0.432	-	0.102
A Mineral Products	-	0.000	-	0.000	-	0.000
B Chemical Industry	-	0.000	-	0.000	-	0.000
C Metal Production	-	0.000	-	0.339	-	0.036
D Other Production	-	0.000	-	0.000	-	0.000
E Production of Halocarbons and Sulphur Hexafluoride	-	0.256	-	0.068	-	0.000
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.000	-	0.025	-	0.065
G Other	-	0.000	-	0.000	-	0.000

France 1994	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.320</b>	-	<b>0.170</b>	-	<b>0.109</b>
2 Industrial Processes	-	0.320	-	0.170	-	0.109
A Mineral Products	-	0.000	-	0.000	-	0.000
B Chemical Industry	-	0.000	-	0.000	-	0.000
C Metal Production	-	0.000	-	0.112	-	0.040
D Other Production	-	0.000	-	0.000	-	0.000
E Production of Halocarbons and Sulphur Hexafluoride	-	0.134	-	0.031	-	0.000
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.186	-	0.027	-	0.069
G Other	-	0.000	-	0.000	-	0.000

France 1995	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.805</b>	-	<b>0.180</b>	-	<b>0.110</b>
2 Industrial Processes	-	0.805	-	0.180	-	0.110
A Mineral Products	-	0.000	-	0.000	-	0.000
B Chemical Industry	-	0.000	-	0.000	-	0.000
C Metal Production	-	0.000	-	0.097	-	0.041
D Other Production	-	0.000	-	0.000	-	0.000
E Production of Halocarbons and Sulphur Hexafluoride	-	0.135	-	0.025	-	0.000
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.670	-	0.058	-	0.070
G Other	-	0.000	-	0.000	-	0.000

France 1996	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>1.550</b>	-	<b>0.199</b>	-	<b>0.113</b>
2 Industrial Processes	-	1.550	-	0.199	-	0.113
A Mineral Products	-	0.000	-	0.000	-	0.000
B Chemical Industry	-	0.000	-	0.000	-	0.000
C Metal Production	-	0.000	-	0.098	-	0.042
D Other Production	-	0.000	-	0.000	-	0.000
E Production of Halocarbons and Sulphur Hexafluoride	-	0.137	-	0.024	-	0.000
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.413	-	0.077	-	0.072
G Other	-	0.000	-	0.000	-	0.000

Ref.: Emission Inventories 1990 - 1996, Submission of 1990 to 1996 data to DGXI under the Monitoring Mechanism, Mission Interministérielle de l'Effet de Serre (MIES), 7 Oct 1998

Note: emission data include DOMs and TOMs (overseas departments and territories).

## Germany 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Germany 1990	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>1,014,500</b>	<b>3,862</b>	<b>5,571.0</b>	<b>224.6</b>	<b>2,709.2</b>	<b>11,219.2</b>	<b>3,224.6</b>
1 Energy	986,832	-	1,774.9	36.6	2,678.2	10,537.0	1,974.6
A Fuel Combustion	986,832	-	213.9	36.6	2,678.2	10,490.0	1,692.3
1 Energy Industries	412,896	-	8.0	14.3	602.6	179.0	8.0
2 Manufacturing Industries and Construction	196,457	-	12.4	6.0	355.0	828.0	12.0
3 Transport	162,281	-	63.7	10.3	1,422.6	6,772.0	1,490.3
4 Other Sectors	203,439	-	127.8	6.0	249.0	2,589.0	160.0
5 Other	11,760	-	2.0	0.0	49.0	122.0	22.0
B Fugitive Emissions from Fuels	NE	-	1,561.0	0.0	0.0	47.0	282.3
1 Solid Fuels	NO	-	1,227.0	NO	NO	20.0	6.0
2 Oil and Natural Gas	NE	-	334.0	0.0	0.0	27.0	277.0
2 Industrial Processes	27,668	-	0.0	82.0	31.0	682.2	90.0
A Mineral Products	24,664	-	0.0	-	6.0	0.0	0.0
B Chemical Industry	2,100	-	0.0	82.0	23.0	1.6	60.0
C Metal Production	904	-	0.0	-	2.0	680.6	3.0
D Other Production	NE	-	0.0	-	0.0	0.0	27.0
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	NO	-	NO	6.0	NO	NO	1,160.0
4 Agriculture	NO	-	1,902.4	96.0	NO	NO	NO
A Enteric Fermentation	NO	-	1,248.0	NO	NO	NO	NO
B Manure Management	NO	-	630.3	11.0	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	24.0	85.0	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	3,862	NO	NO	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	3,862	-	-	-	-	-
B Forest and Grassland Conversion	NO	-	-	-	-	-	-
C Abandonment of Managed Lands	-	NE	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	NE	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	NE	-	1,893.7	4.0	NO	NO	NO
A Solid Waste Disposal on Land	NO	-	1,841.8	NO	NO	NO	NO
B Wastewater Handling	NO	-	51.9	4.0	NO	NO	NO
C Waste Incineration	NE	-	NE	NE	NE	NE	NE
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	19,569	-	0.5	0.6	205.9	93.9	24.5
Aviation	11,589	-	0.2	0.2	50.6	56.6	9.3
Marine	7,980	-	0.3	0.4	155.3	37.3	15.2
CO <sub>2</sub> Emissions from Biomass	NE	-	-	-	-	-	-

Ref.: Updated national GHG Inventories 1990-96 and inventory 1997 (CO<sub>2</sub> also 1998); Submission by Umweltbundesamt Berlin to the EEA, 19 April 1999.

## Germany 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Germany 1994 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	EMISSION ESTIMATES (Gg)					
		CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>904,112</b>	<b>38,875</b>	<b>4,022.0</b>	<b>215.6</b>	<b>2,042.0</b>	<b>7,054.0</b>	<b>2,158.0</b>
1 Energy	877,158	-	1,338.0	38.6	2,028.0	6,473.0	973.0
A Fuel Combustion	877,158	-	119.0	38.6	2,028.0	6,461.0	837.0
1 Energy Industries	362,678	-	7.0	13.3	351.0	133.0	7.0
2 Manufacturing Industries and Construction	149,378	-	8.0	4.0	242.0	702.0	9.0
3 Transport	172,899	-	32.0	16.3	1,200.0	4,174.0	714.0
4 Other Sectors	187,470	-	71.0	5.0	213.0	1,392.0	99.0
5 Other	4,733	-	1.0	0.0	22.0	60.0	8.0
B Fugitive Emissions from Fuels	NE	-	1,219.0	0.0	0.0	12.0	136.0
1 Solid Fuels	NO	-	811.0	NO	NO	11.0	2.0
2 Oil and Natural Gas	NE	-	408.0	0.0	0.0	1.0	134.0
2 Industrial Processes	26,954	-	0.0	81.0	14.0	581.0	95.0
A Mineral Products	24,764	-	0.0	-	5.0	0.0	0.0
B Chemical Industry	1,575	-	0.0	81.0	7.0	1.0	65.0
C Metal Production	615	-	0.0	-	2.0	580.0	2.0
D Other Production	NE	-	0.0	-	0.0	0.0	28.0
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	NO	-	NO	6.0	NO	NO	1,090.0
4 Agriculture	NO	-	1,570.0	86.0	NO	NO	NO
A Enteric Fermentation	NO	-	1,024.0	NO	NO	NO	NO
B Manure Management	NO	-	520.0	9.0	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	26.0	77.0	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	38,875	NO	NO	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	38,875	-	-	-	-	-
B Forest and Grassland Conversion	NO	-	-	-	-	-	-
C Abandonment of Managed Lands	-	NE	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	NE	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	NE	-	1,114.0	4.0	NO	NO	NO
A Solid Waste Disposal on Land	NO	-	1,114.0	NO	NO	NO	NO
B Wastewater Handling	NO	-	0.0	4.0	NO	NO	NO
C Waste Incineration	NE	-	NE	NE	NE	NE	NE
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	19,874	-	0.5	0.7	191.0	98.0	23.0
Aviation	13,398	-	0.2	0.3	65.0	68.0	11.0
Marine	6,476	-	0.3	0.4	126.0	30.0	12.0
CO <sub>2</sub> Emissions from Biomass	NE	-	-	-	-	-	-

Ref.: Updated national GHG Inventories 1990-96 and inventory 1997 (CO<sub>2</sub> also 1998); Submission by Umweltbundesamt Berlin to the EEA, 19 April 1999.

## Germany 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Germany 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>904,488</b>	<b>32,247</b>	<b>3,902.0</b>	<b>217.4</b>	<b>1,946.0</b>	<b>6,885.0</b>	<b>1,981.0</b>
1 Energy	878,100	-	1,314.0	40.2	1,931.0	6,279.0	837.0
A Fuel Combustion	878,100	-	120.0	40.2	1,931.0	6,268.0	759.0
1 Energy Industries	360,000	-	7.0	13.6	339.0	129.0	7.0
2 Manufacturing Industries and Construction	148,000	-	8.0	4.0	235.0	698.0	9.0
3 Transport	175,000	-	30.0	16.6	1,125.0	3,933.0	634.0
4 Other Sectors	191,000	-	74.0	6.0	210.0	1,448.0	101.0
5 Other	4,100	-	1.0	0.0	22.0	60.0	8.0
B Fugitive Emissions from Fuels	NE	-	1,194.0	0.0	0.0	11.0	78.0
1 Solid Fuels	NO	-	837.0	NO	NO	11.0	2.0
2 Oil and Natural Gas	NE	-	357.0	0.0	0.0	0.0	76.0
2 Industrial Processes	26,388	-	0.0	82.0	15.0	606.0	94.0
A Mineral Products	23,815	-	0.0	-	6.0	0.0	0.0
B Chemical Industry	1,870	-	0.0	82.0	7.0	1.0	64.0
C Metal Production	703	-	0.0	-	2.0	605.0	2.0
D Other Production	NE	-	0.0	-	0.0	0.0	28.0
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	NO	-	NO	6.0	NO	NO	1,050.0
4 Agriculture	NO	-	1,559.0	85.2	NO	NO	NO
A Enteric Fermentation	NO	-	1,018.0	NO	NO	NO	NO
B Manure Management	NO	-	515.0	8.6	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	26.0	76.6	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	32,247	NO	NO	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	32,247	-	-	-	-	-
B Forest and Grassland Conversion	NO	-	-	-	-	-	-
C Abandonment of Managed Lands	-	NE	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	NE	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	NE	-	1,029.0	4.0	NO	NO	NO
A Solid Waste Disposal on Land	NO	-	1,029.0	NO	NO	NO	NO
B Wastewater Handling	NO	-	0.0	4.0	NO	NO	NO
C Waste Incineration	NE	-	NE	NE	NE	NE	NE
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	19,874	-	0.5	0.6	191.0	98.0	23.0
Aviation	13,398	-	0.2	0.2	65.0	68.0	11.0
Marine	6,476	-	0.3	0.4	126.0	30.0	12.0
CO <sub>2</sub> Emissions from Biomass	NE	-	-	-	-	-	-

Ref.: Updated national GHG Inventories 1990-96 and inventory 1997 (CO<sub>2</sub> also 1998); Submission by Umweltbundesamt Berlin to the EEA, 19 April 1999.

## Germany 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Germany 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>918,932</b>	<b>35,006</b>	<b>3,573.0</b>	<b>224.0</b>	<b>1,887.0</b>	<b>6,717.0</b>	<b>1,877.0</b>	
1 Energy	894,000	-	1,228.0	42.0	1,874.0	6,139.0	773.0	
A Fuel Combustion	894,000	-	125.0	42.0	1,874.0	6,128.0	699.0	
1 Energy Industries	361,000	-	7.0	13.0	342.0	127.0	7.0	
2 Manufacturing Industries and Construction	140,000	-	8.0	3.0	228.0	673.0	9.0	
3 Transport	174,000	-	29.0	21.0	1,061.0	3,730.0	568.0	
4 Other Sectors	215,000	-	80.0	4.0	220.0	1,536.0	106.0	
5 Other	4,000	-	1.0	1.0	23.0	62.0	9.0	
B Fugitive Emissions from Fuels	NE	-	1,103.0	0.0	0.0	11.0	74.0	
1 Solid Fuels	NO	-	734.0	NO	NO	11.0	2.0	
2 Oil and Natural Gas	NE	-	369.0	0.0	0.0	0.0	72.0	
2 Industrial Processes	24,932	-	0.0	87.0	13.0	578.0	94.0	
A Mineral Products	22,392	-	0.0	-	6.0	0.0	0.0	
B Chemical Industry	1,836	-	0.0	87.0	5.0	1.0	63.0	
C Metal Production	704	-	0.0	-	2.0	577.0	2.0	
D Other Production	NE	-	0.0	-	0.0	0.0	29.0	
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO	
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO	
G Other	-	-	-	-	-	-	-	
3 Solvent and Other Product Use	NO	-	NO	6.0	NO	NO	1,010.0	
4 Agriculture	NO	-	1,553.0	85.0	NO	NO	NO	
A Enteric Fermentation	NO	-	1,012.0	NO	NO	NO	NO	
B Manure Management	NO	-	515.0	9.0	NO	NO	NO	
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO	
D Agricultural Soils	NO	-	26.0	76.0	NO	NO	NO	
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO	
F Field Burning of Agricultural Residues	NO	-	NO	NO	NO	NO	NO	
G Other	-	-	-	-	-	-	-	
5 Land-Use Change & Forestry	-	35,006	NO	NO	NO	NO	NO	
A Changes in Forest and Other Woody Biomass Stocks	-	35,006	-	-	-	-	-	
B Forest and Grassland Conversion	NO	-	-	-	-	-	-	
C Abandonment of Managed Lands	-	NE	-	-	-	-	-	
D CO <sub>2</sub> Emissions and Removals from Soil	-	NE	-	-	-	-	-	
E Other	-	-	-	-	-	-	-	
6 Waste	NE	-	792.0	4.0	NO	NO	NO	
A Solid Waste Disposal on Land	NO	-	792.0	NO	NO	NO	NO	
B Wastewater Handling	NO	-	0.0	4.0	NO	NO	NO	
C Waste Incineration	NE	-	NE	NE	NE	NE	NE	
D Other	-	-	-	-	-	-	-	
7 Other	-	-	-	-	-	-	-	
<b>Memo Items:</b>								
International Bunkers	19,874	-	0.5	0.6	191.0	98.0	23.0	
Aviation	13,398	-	0.2	0.2	65.0	68.0	11.0	
Marine	6,476	-	0.3	0.4	126.0	30.0	12.0	
CO <sub>2</sub> Emissions from Biomass	NE	-	-	-	-	-	-	

Ref.: Updated national GHG Inventories 1990-96 and inventory 1997 (CO<sub>2</sub> also 1998); Submission by Umweltbundesamt Berlin to the EEA, 19 April 1999.

## HFC/PFC/SF<sub>6</sub> emissions in Germany 1990, 1994-96

Germany 1990 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.200</b>	-	<b>0.397</b>	-	<b>0.163</b>
2 Industrial Processes	-	0.200	-	0.397	-	0.163
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	0.197	-	0.010	-	-
C Metal Production	-	-	-	0.369	-	0.007
D Other Production	-	0.003	-	0.018	-	0.004
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	0.000	-	-	-	0.152
G Other	-	-	-	-	-	-

Germany 1994 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>1.942</b>	-	<b>0.245</b>	-	<b>0.242</b>
2 Industrial Processes	-	1.942	-	0.245	-	0.242
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	0.198	-	0.003	-	-
C Metal Production	-	-	-	0.219	-	0.008
D Other Production	-	0.002	-	0.023	-	0.002
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	1.742	-	-	-	0.232
G Other	-	-	-	-	-	-

Germany 1995 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>2.030</b>	-	<b>0.245</b>	-	<b>0.261</b>
2 Industrial Processes	-	2.030	-	0.254	-	0.261
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	0.098	-	0.000	-	-
C Metal Production	-	-	-	0.230	-	0.006
D Other Production	-	0.003	-	0.022	-	0.004
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	1.928	-	0.002	-	0.252
G Other	-	-	-	-	-	-

Germany 1996 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>2.275</b>	-	<b>0.256</b>	-	<b>0.244</b>
2 Industrial Processes	-	2.275	-	0.256	-	0.244
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	0.000	-	0.000	-	-
C Metal Production	-	-	-	0.216	-	0.003
D Other Production	-	0.024	-	0.037	-	0.004
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	2.252	-	0.003	-	0.236
G Other	-	-	-	-	-	-

Ref.: Updated national GHG Inventories 1990-96 and inventory 1997 (CO<sub>2</sub> also 1998); Submission by Umweltbundesamt Berlin to the EEA, 19 April 1999.

## Greece 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Greece 1990 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				CO	NMVOC
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>85,349</b>	<b>0</b>	<b>437.1</b>	<b>29.9</b>	<b>342.9</b>	<b>1,337.5</b>	<b>373.2</b>	
1 Energy	77,256	-	57.5	6.7	305.8	1,180.7	252.5	
A Fuel Combustion	77,256	-	13.3	6.7	305.3	1,179.6	225.9	
1 Energy Industries	43,658	-	0.2	2.7	69.4	5.3	3.8	
2 Manufacturing Industries and Construction	9,820	-	1.6	1.5	20.5	18.5	5.5	
3 Transport	15,170	-	3.3	0.6	165.1	918.1	195.3	
4 Other Sectors	8,168	-	8.2	2.0	50.3	237.6	21.3	
5 Other	440	-	0.0	0.0	0.0	0.0	0.0	
B Fugitive Emissions from Fuels	0	-	44.2	0.0	0.5	1.0	26.6	
1 Solid Fuels	0	-	44.1	0.0	0.0	0.0	0.0	
2 Oil and Natural Gas	0	-	0.1	0.0	0.5	1.0	26.6	
2 Industrial Processes	7,804	-	0.0	2.3	30.9	33.2	2.5	
A Mineral Products	6,984	-	0.0	0.0	29.1	0.0	0.2	
B Chemical Industry	470	-	0.0	2.3	1.3	2.5	1.7	
C Metal Production	350	-	0.0	0.0	0.5	30.5	0.0	
D Other Production	0	-	0.0	0.0	0.1	0.2	0.6	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	0	-	0.0	0.0	0.0	0.0	0.0	
3 Solvent and Other Product Use	186	-	-	0.0	-	-	59.7	
4 Agriculture	0	-	270.6	20.6	4.6	111.9	50.2	
A Enteric Fermentation	-	-	139.8	0.0	0.0	0.0	0.0	
B Manure Management	-	-	23.7	0.4	0.0	0.0	0.0	
C Rice Cultivation	-	-	4.8	0.1	0.0	0.0	0.0	
D Agricultural Soils	-	-	97.0	20.0	0.0	0.0	29.7	
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	0.0	
F Field Burning of Agricultural Residues	-	-	5.3	0.1	4.6	111.9	20.6	
G Other	-	-	0.0	0.0	0.0	0.0	0.0	
5 Land-Use Change & Forestry	0	0	0.0	0.0	0.0	0.0	0.0	
A Changes in Forest and Other Woody Biomass Stocks	0	0	0.0	0.0	0.0	0.0	0.0	
B Forest and Grassland Conversion	0	0	0.0	0.0	0.0	0.0	0.0	
C Abandonment of Managed Lands	0	0	0.0	0.0	0.0	0.0	0.0	
D CO <sub>2</sub> Emissions and Removals from Soil	0	0	0.0	0.0	0.0	0.0	0.0	
E Other	0	0	0.0	0.0	0.0	0.0	0.0	
6 Waste	103	-	109.0	0.3	1.7	11.7	8.3	
A Solid Waste Disposal on Land	0	-	102.0	0.0	0.0	0.0	0.0	
B Wastewater Handling	0	-	6.1	0.0	0.0	0.0	0.0	
C Waste Incineration	103	-	1.0	0.3	1.7	11.7	8.3	
D Other	0	-	0.0	0.0	0.0	0.0	0.0	
7 Other	0	-	0.0	0.0	0.0	0.0	0.0	
<b>Memo Items:</b>								
International Bunkers	10,423	-	1.2	0.6	215.9	55.7	11.4	
Aviation	2,452	-	0.4	0.1	20.4	32.5	5.8	
Marine	7,971	-	0.8	0.5	195.5	23.2	5.7	
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-	

Ref.: "Climate Change Emissions Inventory, National Inventory for Greenhouse and Other Gases for the years 1990 - 1996", Ministry for the Environment, Physical Planning and Public Works, Athens, June 1998.

## Greece 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Greece 1994 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>88,721</b>	<b>0</b>	<b>449.5</b>	<b>28.9</b>	<b>358.1</b>	<b>1,295.8</b>	<b>389.1</b>
1 Energy	81,111	-	61.8	7.1	320.5	1,124.5	273.2
A Fuel Combustion	81,111	-	13.6	7.1	319.9	1,123.4	245.6
1 Energy Industries	47,119	-	0.2	2.9	80.3	6.2	4.1
2 Manufacturing Industries and Construction	9,027	-	2.5	1.3	19.6	13.2	6.8
3 Transport	16,728	-	3.7	1.0	172.5	881.5	215.3
4 Other Sectors	8,046	-	7.2	1.9	47.4	222.4	19.4
5 Other	192	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	0	-	48.2	0.0	0.6	1.2	27.7
1 Solid Fuels	0	-	48.2	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	0.1	0.0	0.6	1.2	27.7
2 Industrial Processes	7,325	-	0.0	1.8	30.5	24.4	1.0
A Mineral Products	7,046	-	0.0	0.0	29.1	0.0	0.0
B Chemical Industry	0	-	0.0	1.8	1.0	0.0	0.2
C Metal Production	279	-	0.0	0.0	0.4	24.3	0.0
D Other Production	0	-	0.0	0.0	0.0	0.1	0.8
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	180	-	-	0.0	-	-	57.7
4 Agriculture	0	-	275.7	19.8	5.4	134.9	48.6
A Enteric Fermentation	-	-	140.4	0.0	0.0	0.0	0.0
B Manure Management	-	-	26.1	0.5	0.0	0.0	0.0
C Rice Cultivation	-	-	6.8	0.0	0.0	0.0	0.0
D Agricultural Soils	-	-	96.0	19.1	0.0	0.0	29.4
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	-	-	6.4	0.1	5.4	134.9	19.2
G Other	-	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	0	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	0	0	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	0	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	0	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	0	-	-	-	-	-
E Other	0	0	0.0	0.0	0.0	0.0	0.0
6 Waste	106	-	112.0	0.3	1.7	12.0	8.6
A Solid Waste Disposal on Land	0	-	104.7	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	6.3	0.0	0.0	0.0	0.0
C Waste Incineration	106	-	1.0	0.3	1.7	12.0	8.6
D Other	0	-	0.0	0.0	0.0	0.0	0.0
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	13,203	-	1.6	0.8	279.5	71.7	14.5
Aviation	2,787	-	0.6	0.1	24.3	41.5	7.1
Marine	10,416	-	1.0	0.7	255.2	30.2	7.4
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Climate Change Emissions Inventory, National Inventory for Greenhouse and Other Gases for the years 1990 - 1996 ",  
Ministry for the Environment, Physical Planning and Public Works, Athens, June 1998.

## Greece 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Greece 1995 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>90,306</b>	<b>0</b>	<b>454.0</b>	<b>28.1</b>	<b>357.7</b>	<b>1,317.5</b>	<b>397.2</b>
1 Energy	82,110	-	62.8	7.4	319.0	1,153.5	281.7
A Fuel Combustion	82,110	-	13.7	7.4	318.3	1,152.1	251.7
1 Energy Industries	47,148	-	0.2	3.2	79.3	5.9	4.1
2 Manufacturing Industries and Construction	9,781	-	2.5	1.4	21.2	14.4	6.8
3 Transport	16,850	-	3.9	1.0	173.0	909.5	221.9
4 Other Sectors	8,132	-	7.2	1.8	44.8	222.3	19.0
5 Other	198	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	0	-	49.1	0.0	0.7	1.4	29.9
1 Solid Fuels	0	-	49.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	0.1	0.0	0.7	1.4	29.9
2 Industrial Processes	7,912	-	0.0	1.8	32.0	24.8	1.9
A Mineral Products	7,392	-	0.0	0.0	30.5	0.0	0.0
B Chemical Industry	251	-	0.0	1.8	1.0	1.3	1.0
C Metal Production	268	-	0.0	0.0	0.4	23.4	0.0
D Other Production	0	-	0.0	0.0	0.0	0.2	0.9
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	179	-	-	0.0	-	-	57.6
4 Agriculture	0	-	279.0	18.6	5.0	127.1	47.4
A Enteric Fermentation	-	-	142.3	0.0	0.0	0.0	0.0
B Manure Management	-	-	27.6	0.5	0.0	0.0	0.0
C Rice Cultivation	-	-	7.4	0.1	0.0	0.0	0.0
D Agricultural Soils	-	-	95.6	17.9	0.0	0.0	29.3
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	-	-	6.1	0.1	5.0	127.1	18.2
G Other	-	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	0	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	0	0	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	0	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	0	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	0	-	-	-	-	-
E Other	0	0	0.0	0.0	0.0	0.0	0.0
6 Waste	106	-	112.2	0.3	1.7	12.0	8.6
A Solid Waste Disposal on Land	0	-	104.9	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	6.3	0.0	0.0	0.0	0.0
C Waste Incineration	106	-	1.0	0.3	1.7	12.0	8.6
D Other	0	-	0.0	0.0	0.0	0.0	0.0
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	13,812	-	1.7	0.8	297.3	73.1	14.8
Aviation	2,613	-	0.6	0.1	23.2	40.6	6.9
Marine	11,199	-	1.1	0.7	274.1	32.5	7.9
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Climate Change Emissions Inventory, National Inventory for Greenhouse and Other Gases for the years 1990 - 1996 ", Ministry for the Environment, Physical Planning and Public Works, Athens, June 1998.

## Greece 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Greece 1996 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>91,978</b>	<b>0</b>	<b>457.0</b>	<b>29.3</b>	<b>373.5</b>	<b>1,333.5</b>	<b>409.0</b>
1 Energy	83,582	-	64.9	7.8	333.9	1,169.5	293.4
A Fuel Combustion	83,582	-	14.0	7.8	333.3	1,168.3	261.1
1 Energy Industries	45,541	-	0.2	3.0	82.9	7.1	4.0
2 Manufacturing Industries and Construction	10,653	-	2.5	1.5	23.3	15.2	7.4
3 Transport	17,253	-	4.0	1.1	171.7	915.5	229.3
4 Other Sectors	10,039	-	7.3	2.2	55.3	230.5	20.4
5 Other	96	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	0	-	50.9	0.0	0.6	1.2	32.2
1 Solid Fuels	0	-	50.8	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	0.1	0.0	0.6	1.2	32.2
2 Industrial Processes	8,111	-	0.0	1.8	32.8	24.8	1.9
A Mineral Products	7,592	-	0.0	0.0	31.4	0.0	0.0
B Chemical Industry	251	-	0.0	1.8	1.0	1.3	1.0
C Metal Production	268	-	0.0	0.0	0.4	23.4	0.0
D Other Production	0	-	0.0	0.0	0.0	0.2	0.9
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	0	-	0.0	0.0	0.0	0.0	0.0
3 Solvent and Other Product Use	180	-	-	0.0	-	-	57.8
4 Agriculture	0	-	279.6	19.5	5.0	127.1	47.3
A Enteric Fermentation	-	-	142.3	0.0	0.0	0.0	0.0
B Manure Management	-	-	27.6	0.6	0.0	0.0	0.0
C Rice Cultivation	-	-	8.4	0.0	0.0	0.0	0.0
D Agricultural Soils	-	-	95.2	18.7	0.0	0.0	29.2
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	-	-	6.1	0.1	5.0	127.1	18.2
G Other	-	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	0	0.0	0.0	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	0	0	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	0	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	0	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	0	0	-	-	-	-	-
E Other	0	0	0.0	0.0	0.0	0.0	0.0
6 Waste	106	-	112.5	0.3	1.7	12.1	8.6
A Solid Waste Disposal on Land	0	-	105.2	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	6.3	0.0	0.0	0.0	0.0
C Waste Incineration	106	-	1.0	0.3	1.7	12.1	8.6
D Other	0	-	0.0	0.0	0.0	0.0	0.0
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	12,432	-	1.5	0.8	263.6	71.4	13.5
Aviation	2,582	-	0.5	0.1	22.3	40.7	6.5
Marine	9,850	-	1.0	0.6	241.3	30.8	7.0
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Climate Change Emissions Inventory, National Inventory for Greenhouse and Other Gases for the years 1990 - 1996 ",  
Ministry for the Environment, Physical Planning and Public Works, Athens, June 1998.

## HFC/PFC/SF<sub>6</sub> emissions in Greece 1990, 1994-96

Greece 1990 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.080</b>	-	<b>0.075</b>	-	<b>0.000</b>
2 Industrial Processes	-	0.080	-	0.075	-	0.000
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	0.000	-	0.100	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	0.100	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	0.000

Greece 1994 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.183</b>	-	<b>0.059</b>	-	<b>0.000</b>
2 Industrial Processes	-	0.183	-	0.059	-	0.000
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	0.000	-	0.100	-	0.000
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	0.200	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	0.000

Greece 1995 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.278</b>	-	<b>0.057</b>	-	<b>0.000</b>
2 Industrial Processes	-	0.278	-	0.057	-	0.000
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	0.000	-	0.100	-	0.000
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	0.300	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	0.000

Greece 1996 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.320</b>	-	<b>0.057</b>	-	<b>0.000</b>
2 Industrial Processes	-	0.320	-	0.057	-	0.000
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	0.100	-	0.000
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	0.300	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	0.000

Ref.: "Climate Change Emissions Inventory, National Inventory for Greenhouse and Other Gases for the years 1990 - 1996 ",  
Ministry for the Environment, Physical Planning and Public Works, Athens, June 1998.

## Ireland 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Ireland 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
<b>Total National Emissions and Removals</b>	<b>30,719</b>	<b>5,160</b>	<b>811.3</b>	<b>29.4</b>	<b>114.6</b>	<b>429.0</b>	<b>180.0</b>
1 Energy	29,038	-	15.5	2.8	112.2	390.1	74.7
A Fuel Combustion	29,038	-	5.3	2.8	112.2	390.1	71.6
1 Energy Industries	10,863	-	0.0	1.4	46.4	3.3	0.3
2 Manufacturing Industries and Construction	5,431	-	0.2	0.4	11.3	0.9	0.3
3 Transport	4,885	-	1.2	0.2	45.3	305.3	62.6
4 Other Sectors	7,859	-	3.9	0.8	9.3	80.6	8.4
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	0	-	10.2	0.0	0.0	0.0	3.1
1 Solid Fuels	0	-	0.3	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	9.9	0.0	0.0	0.0	3.1
2 Industrial Processes	1,627	-	0.0	2.6	1.7	0.0	0.7
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	0	-	0.0	0.0	0.0	0.0	21.4
4 Agriculture	0	-	640.3	23.3	0.7	38.3	82.8
A Enteric Fermentation	0	-	551.4	0.0	0.0	0.0	0.0
B Manure Management	0	-	52.0	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	35.1	23.3	0.0	0.0	78.5
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	1.8	0.0	0.7	38.3	4.3
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	5,160	19.6	0.6	0.0	0.0	0.0
A Changes in Forest and Other Woody Biomass Stocks	0	5,160	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	0	-	19.6	0.6	0.0	0.0	0.0
6 Waste	54	-	136.0	0.0	0.1	0.6	0.5
A Solid Waste Disposal on Land	0	-	136.0	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	0.0	0.0	0.0	0.0	0.0
C Waste Incineration	54	-	0.0	0.0	0.1	0.6	0.5
D Other	0	-	0.0	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	1,172	-	0.1	0.0	5.4	2.2	0.4
Aviation	1,072	-	0.1	0.0	5.3	2.2	0.4
Marine	100	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	0	-	-	-	-	-	-

Ref: "Ireland: Greenhouse Gas Inventories and Projections", Department of the Environment and Local Government, 22 July 1998.

Note: Ireland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Ireland 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Ireland 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>33,324</b>	<b>5,970</b>	<b>807.2</b>	<b>26.0</b>	<b>115.6</b>	<b>329.6</b>	<b>174.4</b>	
1 Energy	31,443	0	14.8	3.5	115.2	329.0	69.8	
A Fuel Combustion	31,443	0	4.1	3.5	115.2	329.0	65.4	
1 Energy Industries	12,574	0	0.0	1.6	45.4	3.4	0.3	
2 Manufacturing Industries and Construction	3,640	0	0.1	0.4	9.9	1.6	0.2	
3 Transport	5,811	0	1.2	0.5	47.7	262.3	58.7	
4 Other Sectors	9,418	0	2.7	1.0	12.2	61.7	6.3	
5 Other	0	0	0.0	0.0	0.0	0.0	0.0	
B Fugitive Emissions from Fuels	0	0	10.7	0.0	0.0	0.0	4.4	
1 Solid Fuels	0	0	0.0	0.0	0.0	0.0	0.0	
2 Oil and Natural Gas	0	0	10.7	0.0	0.0	0.0	4.4	
2 Industrial Processes	1,827	0	0.0	2.6	0.3	0.0	0.0	
A Mineral Products	-	-	-	-	-	-	-	
B Chemical Industry	-	-	-	-	-	-	-	
C Metal Production	-	-	-	-	-	-	-	
D Other Production	-	-	-	-	-	-	-	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	-	-	-	-	-	-	-	
3 Solvent and Other Product Use	0	0	0.0	0.0	0.0	0.0	22.0	
4 Agriculture	0	0	633.3	19.1	0.0	0.0	58.9	
A Enteric Fermentation	0	0	548.2	0.0	0.0	0.0	0.0	
B Manure Management	0	0	55.6	0.0	0.0	0.0	0.0	
C Rice Cultivation	0	0	0.0	0.0	0.0	0.0	0.0	
D Agricultural Soils	0	0	29.5	19.1	0.0	0.0	58.9	
E Prescribed Burning of Savannas	0	0	0.0	0.0	0.0	0.0	0.0	
F Field Burning of Agricultural Residues	0	0	0.0	0.0	0.0	0.0	0.0	
G Other	0	0	0.0	0.0	0.0	0.0	0.0	
5 Land-Use Change & Forestry	0	5,970	23.2	0.8	0.0	0.0	23.2	
A Changes in Forest and Other Woody Biomass Stocks	0	5,970	0.0	0.0	0.0	0.0	0.0	
B Forest and Grassland Conversion	0	0	0.0	0.0	0.0	0.0	0.0	
C Abandonment of Managed Lands	0	0	0.0	0.0	0.0	0.0	0.0	
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-	
E Other	0	0	23.2	0.8	0.0	0.0	23.2	
6 Waste	54	0	136.0	0.0	0.0	0.0	0.5	
A Solid Waste Disposal on Land	0	0	136.0	0.0	0.0	0.0	0.0	
B Wastewater Handling	0	0	0.0	0.0	0.0	0.0	0.0	
C Waste Incineration	54	0	0.0	0.0	0.0	0.0	0.5	
D Other	0	0	0.0	0.0	0.0	0.0	0.0	
7 Other	0	0	0.0	0.0	0.0	0.0	0.0	
<b>Memo Items:</b>								
International Bunkers	1,350	-	0.0	0.0	8.6	4.4	1.1	
Aviation	1,250	-	0.0	0.0	1.8	3.4	0.8	
Marine	100	-	0.0	0.0	6.8	1.1	0.2	
CO <sub>2</sub> Emissions from Biomass	0	-	-	-	-	-	-	

Ref.: "Ireland: Second Communication under the United Nations Framework Convention on Climate Change".

Note: Ireland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Ireland 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Ireland 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>34,116</b>	<b>6,230</b>	<b>814.2</b>	<b>26.2</b>	<b>113.1</b>	<b>302.4</b>	<b>174.7</b>
1 Energy	32,290	-	15.6	3.6	112.8	301.8	69.8
A Fuel Combustion	32,290	-	4.5	3.6	112.8	301.8	65.2
1 Energy Industries	13,374	-	0.0	1.7	42.0	3.6	0.3
2 Manufacturing Industries and Construction	3,452	-	0.1	0.4	9.6	1.5	0.1
3 Transport	6,198	-	1.9	0.6	49.2	238.9	59.2
4 Other Sectors	9,266	-	2.5	1.0	12.0	57.9	5.7
5 Other	0	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	0	-	11.1	0.0	0.0	0.0	4.5
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	11.1	0.0	0.0	0.0	4.5
2 Industrial Processes	1,772	-	0.0	2.6	0.3	0.0	0.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	0	-	0.0	0.0	0.0	0.0	20.0
4 Agriculture	0	-	636.9	19.1	0.0	0.0	58.9
A Enteric Fermentation	0	-	551.5	0.0	0.0	0.0	0.0
B Manure Management	0	-	55.9	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	29.5	19.1	0.0	0.0	58.9
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	6,230	25.8	0.9	0.0	0.0	25.5
A Changes in Forest and Other Woody Biomass Stocks	0	6,230	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	0	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	0	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	0	0	25.8	0.9	0.0	0.0	25.5
6 Waste	54	-	136.0	0.0	0.1	0.6	0.5
A Solid Waste Disposal on Land	0	-	136.0	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	0.0	0.0	0.0	0.0	0.0
C Waste Incineration	54	-	0.0	0.0	0.1	0.6	0.5
D Other	0	-	0.0	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	1,510	-	0.0	0.0	12.3	5.0	1.2
Aviation	1,410	-	-	-	12.3	5.0	1.2
Marine	100	-	-	-	IE	IE	IE
CO <sub>2</sub> Emissions from Biomass	0	-	-	-	-	-	-

Ref: "Ireland: Greenhouse Gas Inventories and Projections", Department of the Environment and Local Government, 22 July 1998.

Note: Ireland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Ireland 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Ireland 1996 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)			CO	NMVOC
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>		
<b>Total National Emissions and Removals</b>	<b>34,819</b>	<b>6,497</b>	<b>799.7</b>	<b>26.2</b>	-	-	-
1 Energy	33,027	-	16.1	3.7	-	-	-
A Fuel Combustion	33,027	-	3.9	3.7	-	-	-
1 Energy Industries	14,087	-	0.0	1.8	-	-	-
2 Manufacturing Industries and Construction	3,446	-	0.1	0.4	-	-	-
3 Transport	6,538	-	1.9	0.6	-	-	-
4 Other Sectors	8,956	-	1.9	1.0	-	-	-
5 Other	0	-	0.0	0.0	-	-	-
B Fugitive Emissions from Fuels	0	-	12.2	0.0	-	-	-
1 Solid Fuels	0	-	0.0	0.0	-	-	-
2 Oil and Natural Gas	0	-	12.2	0.0	-	-	-
2 Industrial Processes	1,738	-	0.0	2.6	-	-	-
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	0	-	0.0	0.0	-	-	-
4 Agriculture	0	-	654.7	19.0	-	-	-
A Enteric Fermentation	0	-	567.1	0.0	-	-	-
B Manure Management	0	-	58.3	0.0	-	-	-
C Rice Cultivation	0	-	0.0	0.0	-	-	-
D Agricultural Soils	0	-	29.3	19.0	-	-	-
E Prescribed Burning of Savannas	0	-	0.0	0.0	-	-	-
F Field Burning of Agricultural Residues	0	-	0.0	0.0	-	-	-
G Other	0	-	0.0	0.0	-	-	-
5 Land-Use Change & Forestry	0	6,497	26.9	0.9	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	0	6,497	0.0	0.0	-	-	-
B Forest and Grassland Conversion	0	0	0.0	0.0	-	-	-
C Abandonment of Managed Lands	0	0	0.0	0.0	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	0	0	26.9	0.9	-	-	-
6 Waste	54	-	102.0	0.0	-	-	-
A Solid Waste Disposal on Land	0	-	102.0	0.0	-	-	-
B Wastewater Handling	0	-	0.0	0.0	-	-	-
C Waste Incineration	54	-	0.0	0.0	-	-	-
D Other	0	-	0.0	0.0	-	-	-
7 Other	0	-	0.0	0.0	-	-	-
<b>Memo Items:</b>							
International Bunkers	1,605	-	0.0	0.0	-	-	-
Aviation	1,605	-	-	-	-	-	-
Marine	IE	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	0	-	-	-	-	-	-

Ref.: "Ireland: Greenhouse Gas Inventories and Projections", Department of the Environment and Local Government, 22 July 1998.

Note: Ireland delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Italy 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Italy 1990	EMISSION ESTIMATES (Gg)						NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	
<b>Greenhouse Gas Source and Sink Categories</b>							
<b>Total National Emissions and Removals</b>	<b>441,653</b>	<b>35,891</b>	<b>2,328.7</b>	<b>164.5</b>	<b>1,942.8</b>	<b>7,892.2</b>	<b>2,221.6</b>
1 Energy	400,504	-	405.4	44.6	1,922.5	7,078.6	1,325.9
A Fuel Combustion	399,590	-	96.5	44.6	1,917.4	7,069.8	1,179.4
1 Energy Industries	148,445	-	5.0	19.9	458.6	30.9	5.2
2 Manufacturing Industries and Construction	78,117	-	8.1	9.5	295.5	522.7	15.4
3 Transport	95,063	-	61.7	3.6	965.9	5,685.7	1,048.9
4 Other Sectors	76,805	-	21.4	11.6	186.0	806.6	105.3
5 Other	1,159	-	0.2	0.0	11.4	23.9	4.7
B Fugitive Emissions from Fuels	914	-	309.0	0.0	5.1	8.8	146.5
1 Solid Fuels	-	-	5.0	-	-	-	3.0
2 Oil and Natural Gas	914	-	304.0	-	5.1	8.8	143.5
2 Industrial Processes	27,520	-	4.4	23.5	7.2	527.5	72.5
A Mineral Products	22,715	-	-	-	-	-	-
B Chemical Industry	2,350	-	2.3	23.5	3.8	15.5	49.6
C Metal Production	1,977	-	2.1	-	3.3	512.0	2.8
D Other Production	478	-	-	-	0.1	-	20.1
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	1,999	-	-	-	-	-	641.5
4 Agriculture	0	-	909.1	75.2	0.9	24.9	1.4
A Enteric Fermentation	-	-	643.1	-	-	-	-
B Manure Management	-	-	191.5	12.9	-	-	0.7
C Rice Cultivation	-	-	73.3	-	-	-	-
D Agricultural Soils	-	-	0.0	62.2	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	1.2	0.0	0.9	24.9	0.8
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	10,942	35,891	187.2	20.9	1.9	67.7	159.9
A Changes in Forest and Other Woody Biomass Stocks	8,736	35,817	-	-	-	-	-
B Forest and Grassland Conversion	2,154	-	7.7	0.1	1.9	67.7	7.7
C Abandonment of Managed Lands	-	74	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	52	-	-	-	-	-	-
E Other	-	-	179.4	20.9	-	-	152.2
6 Waste	688	-	822.7	0.3	10.2	193.4	20.4
A Solid Waste Disposal on Land	0	-	302.1	-	-	-	6.1
B Wastewater Handling	0	-	511.4	-	-	-	1.3
C Waste Incineration	688	-	9.2	0.3	10.2	193.4	13.0
D Other	0	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	12,204	-	1.1	0.6	206.3	23.5	8.2
Aviation	3,737	-	0.3	0.1	12.0	3.5	2.5
Marine	8,467	-	0.8	0.5	194.3	20.0	5.7
CO <sub>2</sub> Emissions from Biomass	3,100	-	-	-	-	-	-

Ref.: "Excerpt from the Second National Communication to the United Nations Framework Convention on Climate Change", Ministry of Environment, Department for Air and Noise Pollution and Industrial Risk, submitted to Commission on 24 March 1998.

Note: The Second National Communication includes CO<sub>2</sub> emissions from geothermal activity (National Total: 443,092 Gg).

## Italy 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Italy 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>422,365</b>	<b>36,395</b>	<b>2,557.6</b>	<b>160.4</b>	<b>1,791.1</b>	<b>7,570.6</b>	<b>2,354.7</b>	
1 Energy	385,395	-	458.5	41.7	1,769.9	6,951.3	1,458.1	
A Fuel Combustion	384,232	-	106.2	41.7	1,764.2	6,942.9	1,303.7	
1 Energy Industries	129,069	-	4.6	18.7	346.6	27.9	4.6	
2 Manufacturing Industries and Construction	81,071	-	7.3	7.7	246.0	516.6	14.9	
3 Transport	102,221	-	70.4	5.4	961.4	5,656.4	1,180.3	
4 Other Sectors	69,717	-	23.7	9.8	189.5	711.5	96.6	
5 Other	2,153	-	0.3	0.1	20.7	30.5	7.3	
B Fugitive Emissions from Fuels	1,163	-	352.2	0.0	5.7	8.4	154.4	
1 Solid Fuels	-	-	3.4	-	-	-	2.7	
2 Oil and Natural Gas	1,163	-	348.8	-	5.7	8.4	151.7	
2 Industrial Processes	22,852	-	4.5	20.6	4.8	290.5	70.5	
A Mineral Products	19,077	-	-	-	-	-	-	
B Chemical Industry	2,214	-	2.3	20.6	1.4	11.1	47.9	
C Metal Production	1,022	-	2.3	-	3.3	279.3	2.9	
D Other Production	539	-	-	-	0.0	-	19.7	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	-	-	-	-	-	-	-	
3 Solvent and Other Product Use	1,976	-	-	-	-	-	-	634.1
4 Agriculture	0	-	915.1	75.9	0.9	25.2	1.9	
A Enteric Fermentation	-	-	607.2	-	-	-	-	
B Manure Management	-	-	181.9	12.4	-	-	0.6	
C Rice Cultivation	-	-	124.8	-	-	-	-	
D Agricultural Soils	-	-	0.0	63.5	-	-	-	
E Prescribed Burning of Savannas	-	-	-	-	-	-	-	
F Field Burning of Agricultural Residues	-	-	1.2	0.0	0.9	25.2	1.2	
G Other	-	-	-	-	-	-	-	
5 Land-Use Change & Forestry	11,421	36,395	192.4	21.6	0.7	23.1	163.9	
A Changes in Forest and Other Woody Biomass Stocks	10,344	35,947	-	-	-	-	-	
B Forest and Grassland Conversion	1,077	-	2.6	0.0	0.7	23.1	2.6	
C Abandonment of Managed Lands	-	133	-	-	-	-	-	
D CO <sub>2</sub> Emissions and Removals from Soil	-	316	-	-	-	-	-	
E Other	-	-	189.7	21.6	-	-	161.3	
6 Waste	721	-	987.1	0.5	14.9	280.5	26.2	
A Solid Waste Disposal on Land	0	-	426.5	-	-	-	7.7	
B Wastewater Handling	0	-	511.4	-	-	-	1.3	
C Waste Incineration	721	-	13.4	0.5	14.9	280.5	17.3	
D Other	0	-	35.8	-	-	-	-	
7 Other	-	-	-	-	-	-	-	
<b>Memo Items:</b>								
International Bunkers	12,416	-	1.1	0.7	185.7	22.0	8.3	
Aviation	4,926	-	0.4	0.2	15.6	4.5	3.3	
Marine	7,491	-	0.7	0.5	170.1	17.5	5.0	
CO <sub>2</sub> Emissions from Biomass	4,178	-	-	-	-	-	-	

Ref.: "Excerpt from the Second National Communication to the United Nations Framework Convention on Climate Change", Ministry of Environment, Department for Air and Noise Pollution and Industrial Risk, submitted to Commission on 24 March 1998.

Note: The Second National Communication includes CO<sub>2</sub> emissions from geothermal activity (National Total: 423,870 Gg).

## Italy 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Italy 1995	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>447,644</b>	<b>36,199</b>	<b>2,515.6</b>	<b>161.8</b>	<b>1,848.6</b>	<b>7,785.7</b>	<b>2,374.7</b>
1 Energy	410,278	-	467.2	44.0	1,827.0	7,154.9	1,489.4
A Fuel Combustion	409,116	-	115.0	44.0	1,821.3	7,146.5	1,335.0
1 Energy Industries	139,180	-	4.9	20.0	375.6	30.1	4.9
2 Manufacturing Industries and Construction	83,043	-	7.3	7.9	252.9	519.7	15.2
3 Transport	108,842	-	77.1	5.5	990.7	5,894.2	1,217.3
4 Other Sectors	76,481	-	25.4	10.6	190.8	685.8	93.5
5 Other	1,569	-	0.1	0.1	11.3	16.7	4.1
B Fugitive Emissions from Fuels	1,163	-	352.2	0.0	5.7	8.4	154.4
1 Solid Fuels	-	-	3.4	-	-	-	2.7
2 Oil and Natural Gas	1,163	-	348.8	-	5.7	8.4	151.7
2 Industrial Processes	22,985	-	4.6	20.4	4.8	290.8	71.1
A Mineral Products	19,077	-	-	-	-	-	-
B Chemical Industry	2,335	-	2.3	20.4	1.4	11.4	48.0
C Metal Production	1,034	-	2.3	-	3.3	279.3	2.9
D Other Production	539	-	-	-	0.0	-	20.2
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	1,962	-	-	-	-	-	629.5
4 Agriculture	0	-	871.7	75.9	0.9	25.2	1.9
A Enteric Fermentation	-	-	607.2	-	-	-	-
B Manure Management	-	-	181.9	12.4	-	-	0.6
C Rice Cultivation	-	-	81.4	-	-	-	-
D Agricultural Soils	-	-	0.0	63.5	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	1.2	0.0	0.9	25.2	1.2
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	11,692	36,199	183.3	20.9	1.0	34.2	156.1
A Changes in Forest and Other Woody Biomass Stocks	10,344	35,947	-	-	-	-	-
B Forest and Grassland Conversion	1,348	-	3.9	0.0	1.0	34.2	3.9
C Abandonment of Managed Lands	-	157	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	95	-	-	-	-	-
E Other	-	-	179.4	20.9	-	-	152.2
6 Waste	727	-	988.8	0.5	14.9	280.5	26.8
A Solid Waste Disposal on Land	0	-	464.0	-	-	-	8.2
B Wastewater Handling	0	-	511.4	-	-	-	1.3
C Waste Incineration	727	-	13.4	0.5	14.9	280.5	17.3
D Other	0	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	13,099	-	1.1	0.7	193.0	23.0	8.8
Aviation	5,447	-	0.4	0.2	17.5	5.0	3.7
Marine	7,651	-	0.7	0.5	175.5	18.0	5.1
CO <sub>2</sub> Emissions from Biomass	4,279	-	-	-	-	-	-

Ref.: "Excerpt from the Second National Communication to the United Nations Framework Convention on Climate Change", Ministry of Environment, Department for Air and Noise Pollution and Industrial Risk, submitted to Commission on 24 March 1998.

Note: The Second National Communication includes CO<sub>2</sub> emissions from geothermal activity (National Total: 449,159 Gg).

## Luxembourg 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Luxembourg 1990 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				CO	NMVOC
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>13,300</b>	<b>0</b>	<b>24.0</b>	<b>1.0</b>	<b>23.0</b>	<b>171.0</b>	<b>19.0</b>	
1 Energy	12,600	-	2.0	-	23.0	154.0	14.0	
A Fuel Combustion	12,600	-	0.0	-	23.0	154.0	12.0	
1 Energy Industries	1,900	-	0.0	-	1.0	1.0	-	
2 Manufacturing Industries and Construction	6,600	-	-	-	11.0	98.0	1.0	
3 Transport	2,900	-	-	-	11.0	48.0	11.0	
4 Other Sectors	1,100	-	-	-	1.0	6.0	1.0	
5 Other	100	-	-	-	-	1.0	-	
B Fugitive Emissions from Fuels	0	-	2.0	0.0	0.0	0.0	0.0	2.0
1 Solid Fuels	-	-	-	0.0	-	-	-	-
2 Oil and Natural Gas	-	-	2.0	0.0	-	-	-	2.0
2 Industrial Processes	600	-	0.0	1.0	0.0	17.0	1.0	
A Mineral Products	-	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-	-
3 Solvent and Other Product Use	0	-	0.0	-	0.0	0.0	0.0	4.0
4 Agriculture	0	-	18.0	-	0.0	0.0	0.0	1.0
A Enteric Fermentation	-	-	16.0	-	-	-	-	-
B Manure Management	-	-	2.0	-	-	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	-	-	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	-	-	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-	-
6 Waste	100	-	4.0	0.0	1.0	0.0	0.0	0.0
A Solid Waste Disposal on Land	1	-	4.0	-	-	-	-	-
B Wastewater Handling	-	-	1.0	-	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-	-
D Other	100	-	1.0	-	-	-	-	-
7 Other	-	-	-	-	-	-	-	-
<b>Memo Items:</b>								
International Bunkers	300	-	-	-	-	-	-	-
Aviation	300	-	-	-	-	-	-	-
Marine	0	-	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-	-

Ref.: "Rapport National du Luxembourg en vue de la 1<sup>e</sup> Conférence des Parties à la Convention-Cadre des Nations-Unies sur les Changements Climatiques", Ministère de l'Environnement, Mars 1995.

Note: Luxembourg delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Luxembourg 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Luxembourg 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	
<b>Total National Emissions and Removals</b>	<b>11,998</b>	<b>0</b>	<b>21.9</b>	<b>0.7</b>	<b>22.4</b>	<b>144.7</b>	<b>18.5</b>
1 Energy	11,520	-	2.3	0.2	22.0	131.0	12.6
A Fuel Combustion	11,520	-	0.8	0.2	22.0	131.0	10.8
1 Energy Industries	1,064	-	0.0	0.0	0.3	0.0	0.0
2 Manufacturing Industries and Construction	5,475	-	0.1	0.0	9.7	76.3	0.3
3 Transport	3,685	-	0.2	0.1	10.4	44.0	9.1
4 Other Sectors	1,296	-	0.5	0.0	1.6	10.7	1.3
5 Other	-	-	-	-	-	-	-
B Fugitive Emissions from Fuels	0	-	1.5	0.0	0.0	0.0	1.8
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	1.5	0.0	0.0	0.0	1.8
2 Industrial Processes	447	-	0.0	0.0	0.2	13.7	1.1
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	12	-	0.0	0.0	0.0	0.0	3.8
4 Agriculture	0	-	16.9	0.5	0.0	0.0	0.2
A Enteric Fermentation	0	-	15.8	0.0	0.0	0.0	0.0
B Manure Management	0	-	1.1	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	0.0	0.5	0.0	0.0	0.2
E Prescribed Burning of Savannas	0	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	0	-	0.0	0.0	0.0	0.0	0.0
G Other	0	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	-	0.0	0.0	0.0	0.0	0.8
A Changes in Forest and Other Woody Biomass Stocks	0	-	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	0	-	0.0	0.0	0.0	0.0	0.8
6 Waste	19	-	2.7	0.0	0.3	0.0	0.0
A Solid Waste Disposal on Land	1	-	2.2	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	0.2	0.0	0.0	0.0	0.0
C Waste Incineration	18	-	0.0	0.0	0.3	0.0	0.0
D Other	0	-	0.2	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	194	-	0.0	0.0	0.1	0.5	0.2
Aviation	194	-	0.0	0.0	0.1	0.5	0.2
Marine	0	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Luxembourg CO<sub>2</sub> emissions in 1994 and 1995", Administration de l'Environnement, Grand Duché de Luxembourg, 29 August 1996.

Note: Luxembourg delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Luxembourg 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Luxembourg 1995 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>7,078</b>	<b>0</b>	<b>22.1</b>	<b>0.7</b>	<b>20.0</b>	<b>104.1</b>	<b>17.4</b>
1 Energy	6,790	-	2.4	0.2	19.5	94.7	11.8
A Fuel Combustion	6,790	-	0.7	0.2	19.5	94.7	10.0
1 Energy Industries	820	-	0.0	0.0	0.2	0.0	0.0
2 Manufacturing Industries and Construction	3,474	-	0.0	0.0	7.6	43.9	0.2
3 Transport	1,182	-	0.2	0.1	10.2	41.4	8.6
4 Other Sectors	1,236	-	0.5	0.0	1.5	9.4	1.2
5 Other	78	-	-	-	-	-	-
B Fugitive Emissions from Fuels	0	-	1.8	0.0	0.0	0.0	1.8
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	1.8	0.0	0.0	0.0	1.8
2 Industrial Processes	271	-	0.0	0.0	0.2	9.3	0.9
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	0	-	0.0	0.0	0.0	0.0	0.0
C Metal Production	266	-	0.0	0.0	0.2	9.3	0.7
D Other Production	0	-	0.0	0.0	0.0	0.0	0.0
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	5	-	0.0	0.0	0.0	0.0	0.1
3 Solvent and Other Product Use	11	-	0.0	0.0	0.0	0.0	3.8
4 Agriculture	0	-	16.9	0.5	0.0	0.0	0.2
A Enteric Fermentation	-	-	15.8	0.0	0.0	0.0	0.0
B Manure Management	-	-	1.1	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	0.0	0.5	0.0	0.0	0.2
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	-	-	0.0	0.0	0.0	0.0	0.0
G Other	-	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	-	0.0	0.0	0.0	0.0	0.8
A Changes in Forest and Other Woody Biomass Stocks	0	-	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	0	-	0.0	0.0	0.0	0.0	0.8
6 Waste	6	-	2.7	0.0	0.3	0.0	0.0
A Solid Waste Disposal on Land	4	-	2.2	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	0.2	0.0	0.0	0.0	0.0
C Waste Incineration	0	-	0.0	0.0	0.3	0.0	0.0
D Other	2	-	0.3	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.8
<b>Memo Items:</b>							
International Bunkers	194	-	0.0	0.0	0.1	0.5	0.2
Aviation	194	-	0.0	0.0	0.1	0.5	0.2
Marine	0	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Emissions de CO<sub>2</sub> et autres gaz à effet de serre du Grand-Duché de Luxembourg, informations fournies conformément à la décision du Conseil N° 93/389/EEC", Representation Permanente du Grand-Duché de Luxembourg auprès de l'Union Européenne, 4 August 1998".

Note: Luxembourg delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Luxembourg 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Luxembourg 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>7,098</b>	<b>295</b>	<b>23.9</b>	<b>0.7</b>	<b>21.9</b>	<b>102.3</b>	<b>17.4</b>
1 Energy	6,837	-	2.6	0.2	21.7	94.0	12.0
A Fuel Combustion	6,837	-	0.7	0.2	21.7	94.0	10.2
1 Energy Industries	737	-	0.0	0.0	0.3	0.0	0.0
2 Manufacturing Industries and Construction	3,409	-	0.0	0.0	9.4	42.6	0.2
3 Transport	1,241	-	0.2	0.1	10.5	41.2	8.7
4 Other Sectors	1,375	-	0.5	0.0	1.1	9.0	1.1
5 Other	75	-	-	-	-	-	-
B Fugitive Emissions from Fuels	0	-	1.9	0.0	0.0	0.0	1.8
1 Solid Fuels	0	-	0.0	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	0	-	1.9	0.0	0.0	0.0	1.8
2 Industrial Processes	236	-	0.0	0.0	0.2	8.4	0.8
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	0	-	0.0	0.0	0.0	0.0	0.0
C Metal Production	231	-	0.0	0.0	0.2	8.4	0.6
D Other Production	0	-	0.0	0.0	0.0	0.0	0.0
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	5	-	0.0	0.0	0.0	0.0	0.1
3 Solvent and Other Product Use	11	-	0.0	0.0	0.0	0.0	3.7
4 Agriculture	0	-	17.6	0.5	0.0	0.0	0.2
A Enteric Fermentation	-	-	16.5	0.0	0.0	0.0	0.0
B Manure Management	-	-	1.1	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	0.0	0.0	0.0	0.0	0.0
D Agricultural Soils	0	-	0.0	0.5	0.0	0.0	0.2
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	0.0
F Field Burning of Agricultural Residues	-	-	0.0	0.0	0.0	0.0	0.0
G Other	-	-	0.0	0.0	0.0	0.0	0.0
5 Land-Use Change & Forestry	0	295	0.0	0.0	0.0	0.0	0.8
A Changes in Forest and Other Woody Biomass Stocks	0	295	0.0	0.0	0.0	0.0	0.0
B Forest and Grassland Conversion	0	-	0.0	0.0	0.0	0.0	0.0
C Abandonment of Managed Lands	0	-	0.0	0.0	0.0	0.0	0.0
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	0	-	0.0	0.0	0.0	0.0	0.8
6 Waste	14	-	3.7	0.0	0.0	0.0	0.0
A Solid Waste Disposal on Land	1	-	3.3	0.0	0.0	0.0	0.0
B Wastewater Handling	0	-	0.2	0.0	0.0	0.0	0.0
C Waste Incineration	13	-	0.0	0.0	0.0	0.0	0.0
D Other	0	-	0.2	0.0	0.0	0.0	0.0
7 Other	0	-	0.0	0.0	0.0	0.0	0.8
<b>Memo Items:</b>							
International Bunkers	194	-	0.0	0.0	0.1	0.5	0.2
Aviation	194	-	0.0	0.0	0.1	0.5	0.2
Marine	0	-	0.0	0.0	0.0	0.0	0.0
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Emissions de CO<sub>2</sub> et autres gaz à effet de serre du Grand-Duché de Luxembourg de 1996 et de 1997 (valeurs provisoires pour 1997)", Representation Permanente du Grand-Duché de Luxembourg auprès de l'Union Européenne, 15 September 1998.

Note: Luxembourg delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Netherlands 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

Netherlands 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
<b>Total National Emissions and Removals</b>	<b>161,360</b>	<b>1,500</b>	<b>1,292.3</b>	<b>63.9</b>	<b>563.2</b>	<b>1,139.2</b>	<b>499.8</b>
1 Energy	157,950	-	213.5	5.3	545.0	979.7	266.4
A Fuel Combustion	157,530	-	34.8	5.3	543.9	973.5	218.8
1 Energy Industries	51,040	-	6.7	0.5	100.7	99.3	8.5
2 Manufacturing Industries and Construction	41,440	-	4.0	0.1	65.7	114.2	4.7
3 Transport	28,560	-	7.8	4.6	336.9	748.9	200.5
4 Other Sectors	35,400	-	16.3	0.1	40.6	11.1	5.1
5 Other	1,100	-	-	-	-	-	-
B Fugitive Emissions from Fuels	420	-	178.8	-	1.1	6.2	47.6
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	420	-	178.8	-	1.1	6.2	47.6
2 Industrial Processes	1,880	-	3.4	31.5	13.5	153.6	130.4
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	10	-	0.0	0.5	0.1	2.4	101.4
4 Agriculture	-	-	505.0	22.2	-	-	0.2
A Enteric Fermentation	-	-	402.0	-	-	-	-
B Manure Management	-	-	103.0	0.7	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	21.5	-	-	0.2
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	1,500	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	1,500	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	1,520	-	568.4	0.5	4.5	3.5	1.4
A Solid Waste Disposal on Land	-	-	562.1	-	0.3	1.4	0.2
B Wastewater Handling	-	-	6.3	0.5	-	-	-
C Waste Incineration	1,520	-	0.0	0.1	4.2	2.1	1.3
D Other	-	-	-	-	-	-	-
7 Other	-	-	2.0	3.8	-	-	-
<b>Memo Items:</b>							
Nature	-	-	125.0	2.4	16.3	26.7	3.2
International Bunkers	40,400	-	-	-	-	-	-
Aviation	4,500	-	-	-	-	-	-
Marine	35,900	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	3,080	-	-	-	-	-	-

Ref.: "Greenhouse gas emissions in the Netherlands 1990-1996: Updated methodology. A report on the International Commitments with respect to Greenhouse Gas Emission Inventories for the United Nations Framework Convention on Climate Change and the European Union's Greenhouse Gas Monitoring Mechanism", National Institute of Public Health and the Environment, Bilthoven, The Netherlands, December 1997.

Note: The Netherlands delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Netherlands 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Netherlands 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>168,390</b>	<b>1,700</b>	<b>1,203.0</b>	<b>70.1</b>	<b>493.3</b>	<b>905.1</b>	<b>387.6</b>
1 Energy	165,750	-	202.3	7.2	479.6	797.0	215.8
A Fuel Combustion	165,560	-	33.7	6.9	479.1	789.4	173.5
1 Energy Industries	54,780	-	7.6	0.1	80.7	103.3	9.1
2 Manufacturing Industries and Construction	40,950	-	2.6	0.1	54.4	114.3	2.6
3 Transport	30,800	-	6.3	6.6	304.4	559.9	156.5
4 Other Sectors	38,500	-	17.3	0.1	39.5	11.9	5.3
5 Other	530	-	-	-	-	-	-
B Fugitive Emissions from Fuels	190	-	168.5	0.4	0.5	7.6	42.3
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	190	-	168.5	0.4	0.5	7.6	42.3
2 Industrial Processes	1,430	-	5.3	31.6	10.4	101.7	88.2
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	10	-	0.3	0.5	0.1	2.1	82.3
4 Agriculture	-	-	483.0	26.4	-	-	0.2
A Enteric Fermentation	-	-	382.0	-	-	-	-
B Manure Management	-	-	101.0	0.8	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	25.6	-	-	0.2
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	1,700	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	1,700	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	1,200	-	510.2	0.5	3.2	4.3	1.2
A Solid Waste Disposal on Land	-	-	505.1	-	0.3	1.4	0.2
B Wastewater Handling	-	-	5.1	0.5	-	-	-
C Waste Incineration	1,200	-	0.0	0.1	2.9	2.9	1.0
D Other	-	-	-	-	-	-	-
7 Other	-	-	2.0	3.8	-	-	-
<b>Memo Items:</b>							
Nature	-	-	125.0	2.4	16.3	26.7	3.2
International Bunkers	43,200	-	-	-	-	-	-
Aviation	6,700	-	-	-	-	-	-
Marine	36,500	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	3,500	-	-	-	-	-	-

Ref.: "Greenhouse gas emissions in the Netherlands 1990-1996: Updated methodology. A report on the International Commitments with respect to Greenhouse Gas Emission Inventories for the United Nations Framework Convention on Climate Change and the European Union's Greenhouse Gas Monitoring Mechanism", National Institute of Public Health and the Environment, Bilthoven, The Netherlands, December 1997.

Note: The Netherlands delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Netherlands 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES

Netherlands 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>176,910</b>	<b>1,700</b>	<b>1,173.0</b>	<b>71.9</b>	<b>481.0</b>	<b>890.0</b>	<b>363.0</b>
1 Energy	173,730	-	209.0	7.9	468.0	788.0	215.0
A Fuel Combustion	173,530	-	35.2	7.9	467.3	778.9	170.0
1 Energy Industries	56,700	-	8.7	0.5	77.5	105.9	11.0
2 Manufacturing Industries and Construction	42,710	-	2.7	0.1	52.0	117.9	2.7
3 Transport	31,860	-	6.2	7.2	297.4	541.2	150.8
4 Other Sectors	39,780	-	17.6	0.1	40.4	13.8	5.5
5 Other	2,490	-	-	-	-	-	-
B Fugitive Emissions from Fuels	200	-	174.0	-	0.6	9.5	44.7
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	200	-	174.0	-	0.6	9.5	44.7
2 Industrial Processes	1,750	-	5.0	31.6	10.5	98.0	76.3
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	50	-	0.0	0.4	0.1	2.1	70.5
4 Agriculture	-	-	476.0	27.6	-	-	0.2
A Enteric Fermentation	-	-	377.0	-	-	-	-
B Manure Management	-	-	99.0	0.8	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	26.8	-	-	0.2
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	1,700	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	1,700	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	1,380	-	480.6	0.5	2.8	1.8	1.2
A Solid Waste Disposal on Land	-	-	479.1	-	0.3	1.4	0.2
B Wastewater Handling	130	-	1.5	0.5	-	-	-
C Waste Incineration	1,250	-	0.0	0.0	2.4	0.4	1.1
D Other	-	-	-	-	-	-	-
7 Other	-	-	2.0	3.8	-	-	-
<b>Memo Items:</b>							
Nature	-	-	125.0	2.4	16.3	26.7	3.2
International Bunkers	44,600	-	-	-	-	-	-
Aviation	7,100	-	-	-	-	-	-
Marine	37,500	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	3,630	-	-	-	-	-	-

Ref.: "Greenhouse gas emissions in the Netherlands 1990-1996: Updated methodology. A report on the International Commitments with respect to Greenhouse Gas Emission Inventories for the United Nations Framework Convention on Climate Change and the European Union's Greenhouse Gas Monitoring Mechanism", National Institute of Public Health and the Environment, Bilthoven, The Netherlands, December 1997.

Note: The Netherlands delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Netherlands 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Netherlands 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOC
<b>Total National Emissions and Removals</b>	<b>184,870</b>	<b>1,700</b>	<b>1,178.9</b>	<b>72.4</b>	<b>471.4</b>	<b>860.3</b>	<b>347.3</b>
1 Energy	181,870	-	230.8	8.5	460.0	761.2	208.3
A Fuel Combustion	181,730	-	39.3	8.5	459.5	754.1	167.2
1 Energy Industries	56,340	-	10.2	0.5	77.4	107.3	13.5
2 Manufacturing Industries and Construction	42,680	-	2.7	0.1	51.4	116.6	2.9
3 Transport	33,370	-	6.0	7.8	284.3	515.2	144.3
4 Other Sectors	45,880	-	20.4	0.1	46.4	15.1	6.5
5 Other	3,460	-	-	-	-	-	-
B Fugitive Emissions from Fuels	140	-	191.6	-	0.4	7.1	41.1
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	140	-	191.6	-	0.4	7.1	41.1
2 Industrial Processes	1,740	-	4.5	31.6	9.7	95.1	71.3
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	10	-	0.0	0.4	0.1	2.1	66.7
4 Agriculture	-	-	476.0	27.5	-	-	0.2
A Enteric Fermentation	-	-	377.0	-	-	-	-
B Manure Management	-	-	99.0	0.8	-	-	-
C Rice Cultivation	-	-	-	-	-	-	-
D Agricultural Soils	-	-	-	26.7	-	-	0.2
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	1,700	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	1,700	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	1,250	-	465.6	0.6	1.7	1.9	0.8
A Solid Waste Disposal on Land	-	-	464.1	-	0.3	1.4	0.2
B Wastewater Handling	-	-	1.5	0.5	-	-	-
C Waste Incineration	1,250	-	-	0.1	1.4	0.5	0.7
D Other	-	-	-	-	-	-	-
7 Other	-	-	2.0	3.8	-	-	-
<b>Memo Items:</b>							
Nature	-	-	125.0	2.4	16.3	26.7	3.2
International Bunkers	45,800	-	-	-	-	-	-
Aviation	8,200	-	-	-	-	-	-
Marine	37,600	-	-	-	-	-	-
CO <sub>2</sub> Emissions from Biomass	4,280	-	-	-	-	-	-

Ref.: "Greenhouse gas emissions in the Netherlands 1990-1996: Updated methodology. A report on the International Commitments with respect to Greenhouse Gas Emission Inventories for the United Nations Framework Convention on Climate Change and the European Union's Greenhouse Gas Monitoring Mechanism", National Institute of Public Health and the Environment, Bilthoven, The Netherlands, December 1997.

Note: The Netherlands delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## HFC/PFC/SF<sub>6</sub> emissions in the Netherlands 1990, 1994-96

Netherlands 1990 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.489</b>	-	<b>0.363</b>	<b>0.058</b>	-
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Netherlands 1994 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.711</b>	-	<b>0.353</b>	<b>0.061</b>	-
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Netherlands 1995 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>0.855</b>	-	<b>0.353</b>	<b>0.061</b>	-
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Netherlands 1996 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	<b>1.187</b>	-	<b>0.343</b>	<b>0.061</b>	-
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Ref.: "Greenhouse gas emissions in the Netherlands 1990-1996: Updated methodology. A report on the International Commitments with respect to Greenhouse Gas Emission Inventories for the United Nations Framework Convention on Climate Change and the European Union's Greenhouse Gas Monitoring Mechanism", National Institute of Public Health and the Environment, Bilthoven, The Netherlands, December 1997.

## Portugal 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Portugal 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>47,123</b>	<b>1,152</b>	<b>815.8</b>	<b>14.4</b>	<b>346.2</b>	<b>1,254.5</b>	<b>282.1</b>
1 Energy	43,440	-	26.5	2.1	341.7	1,223.1	173.2
A Fuel Combustion	43,281	-	22.2	2.1	341.7	1,223.1	126.0
1 Energy Industries	17,015	-	8.6	0.6	77.9	277.7	26.6
2 Manufacturing Industries and Construction	7,225	-	1.6	0.2	18.2	25.3	7.6
3 Transport	14,060	-	4.8	0.5	196.9	646.7	66.7
4 Other Sectors	4,468	-	7.1	0.8	45.2	273.3	24.7
5 Other	512	-	0.2	0.0	3.6	0.2	0.3
B Fugitive Emissions from Fuels	159	-	4.3	NA	NA	NA	47.1
1 Solid Fuels	9	-	3.1	NA	NA	NA	0.0
2 Oil and Natural Gas	150	-	1.1	NA	NA	NA	47.1
2 Industrial Processes	3,421	-	0.4	1.9	4.5	30.8	17.6
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	262	-	NA	NA	NA	NA	84.1
4 Agriculture	NE	-	210.7	7.4	NE	NE	NE
A Enteric Fermentation	NA	-	123.9	NE	NE	NA	NA
B Manure Management	NA	-	67.8	IE	NE	NA	NA
C Rice Cultivation	NA	-	19.0	0.0	NA	NA	NA
D Agricultural Soils	NA	-	NE	7.4	NE	NA	NE
E Prescribed Burning of Savannas	NA	-	NA	NA	-	-	0.0
F Field Burning of Agricultural Residues	NE	-	NE	NE	-	-	0.0
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	1,152	NA	NA	NA	NA	NA
A Changes in Forest and Other Woody Biomass Stocks	-	IE	-	-	-	-	-
B Forest and Grassland Conversion	-	IE	-	-	-	-	-
C Abandonment of Managed Lands	-	IE	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	1,152	-	-	-	-	-
6 Waste	0	-	578.3	2.9	0.0	0.6	7.3
A Solid Waste Disposal on Land	-	-	IE	IE	IE	IE	IE
B Wastewater Handling	-	-	IE	IE	IE	IE	IE
C Waste Incineration	-	-	IE	IE	IE	IE	IE
D Other	-	-	578.3	2.9	0.0	0.6	7.3
7 Other	0	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	2,062	-	2.1	0.0	36.5	2.4	0.1
Aviation	158	-	IE	IE	IE	IE	IE
Marine	1,904	-	2.1	0.0	36.5	2.4	0.1
CO <sub>2</sub> Emissions from Biomass	10,866	-	-	-	-	-	-

Ref.: "Portugal's Second Report to be submitted to the Conference of the Parties to the Framework Convention on Climate Change", Ministry of the Environment, 1997.

Note: Portugal delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Portugal 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Portugal 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>50,841</b>	<b>1,152</b>	<b>834.3</b>	<b>14.5</b>	<b>379.2</b>	<b>1,462.4</b>	<b>318.6</b>	
1 Energy	47,154	-	25.6	2.4	374.6	1,428.9	208.0	
A Fuel Combustion	46,953	-	22.2	2.4	374.6	1,428.9	146.5	
1 Energy Industries	17,150	-	8.6	0.6	78.5	277.9	26.5	
2 Manufacturing Industries and Construction	7,178	-	1.7	0.2	19.0	28.3	7.8	
3 Transport	16,849	-	4.7	0.8	226.3	847.8	87.0	
4 Other Sectors	5,074	-	7.1	0.8	46.0	274.8	24.8	
5 Other	701	-	0.2	0.0	4.9	0.2	0.4	
B Fugitive Emissions from Fuels	201	-	3.4	NA	NA	NA	61.5	
1 Solid Fuels	5	-	2.0	NA	NA	NA	0.0	
2 Oil and Natural Gas	196	-	1.4	NA	NA	NA	61.5	
2 Industrial Processes	3,421	-	0.4	1.9	4.5	32.9	17.7	
A Mineral Products	-	-	-	-	-	-	-	
B Chemical Industry	-	-	-	-	-	-	-	
C Metal Production	-	-	-	-	-	-	-	
D Other Production	-	-	-	-	-	-	-	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	-	-	-	-	-	-	-	
3 Solvent and Other Product Use	266	-	NA	NA	NA	NA	85.2	
4 Agriculture	NE	-	194.8	7.2	NE	NE	NE	
A Enteric Fermentation	NA	-	118.6	NE	NE	NA	NA	
B Manure Management	NA	-	63.0	IE	NE	NA	NA	
C Rice Cultivation	NA	-	13.2	0.0	NA	NA	NA	
D Agricultural Soils	NA	-	NE	7.2	NE	NA	NE	
E Prescribed Burning of Savannas	NA	-	NA	NA	-	-	0.0	
F Field Burning of Agricultural Residues	NE	-	NE	NE	-	-	0.0	
G Other	-	-	-	-	-	-	-	
5 Land-Use Change & Forestry	-	1,152	NA	NA	NA	NA	NA	
A Changes in Forest and Other Woody Biomass Stocks	-	IE	-	-	-	-	-	
B Forest and Grassland Conversion	-	IE	-	-	-	-	-	
C Abandonment of Managed Lands	-	IE	-	-	-	-	-	
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-	
E Other	-	1,152	-	-	-	-	-	
6 Waste	0	-	613.5	2.9	0.0	0.6	7.8	
A Solid Waste Disposal on Land	0	-	528.3	0.0	0.0	0.6	6.7	
B Wastewater Handling	0	-	85.2	2.9	0.0	0.0	1.1	
C Waste Incineration	0	-	0.0	0.0	0.0	0.0	0.0	
D Other	0	-	0.0	0.0	0.0	0.0	0.0	
7 Other	0	-	0.0	0.0	0.0	0.0	0.0	
<b>Memo Items:</b>								
International Bunkers	3,300	-	1,850.0	1.7	0.0	30.1	2.3	
Aviation	1,800	-	1,850.0	1.7	0.0	30.1	2.3	
Marine	1,500	-	IE	IE	IE	IE	IE	
CO <sub>2</sub> Emissions from Biomass	11,052	-	-	-	-	-	-	

Ref.: "Portugal's Second Report to be submitted to the Conference of the Parties to the Framework Convention on Climate Change", Ministry of the Environment, 1997.

Note: Portugal delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Spain 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Spain 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>226,423</b>	<b>28,970</b>	<b>2,181.2</b>	<b>94.2</b>	<b>1,164.4</b>	<b>4,733.8</b>	<b>1,123.3</b>
1 Energy	208,006	-	762.4	20.2	1,140.5	4,019.7	639.4
A Fuel Combustion	207,592	-	75.6	20.2	1,140.5	4,019.7	450.5
1 Energy Industries	75,184	-	12.4	10.2	274.2	21.6	29.6
2 Manufacturing Industries and Construction	47,971	-	6.0	5.2	187.5	432.7	17.5
3 Transport	58,260	-	12.2	2.0	566.0	2,620.5	327.5
4 Other Sectors	26,177	-	45.1	2.8	112.7	944.9	75.9
5 Other	-	-	-	-	-	-	-
B Fugitive Emissions from Fuels	414	-	686.7	0.0	0.0	0.0	188.9
1 Solid Fuels	-	-	612.5	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	414	-	74.3	0.0	0.0	0.0	188.9
2 Industrial Processes	17,690	-	2.0	10.4	11.8	247.4	52.1
A Mineral Products	15,067	-	0.0	0.0	0.0	0.0	0.0
B Chemical Industry	688	-	0.6	10.4	8.2	0.0	18.7
C Metal Production	1,417	-	1.3	0.0	1.8	247.4	1.5
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	518	-	0.0	0.0	1.9	0.0	31.9
3 Solvent and Other Product Use	0	-	0.0	0.0	0.0	0.0	309.5
4 Agriculture	0	-	925.6	63.5	5.8	396.7	96.3
A Enteric Fermentation	0	-	345.6	0.0	0.0	0.0	0.0
B Manure Management	0	-	464.6	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	10.8	0.4	0.0	0.0	0.0
D Agricultural Soils	0	-	82.7	63.2	0.0	0.0	74.4
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	0	-	21.9	0.0	5.8	396.7	21.9
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	28,970	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	28,970	-	-	-	-	-
6 Waste	0	-	491.3	0.1	6.4	69.9	26.1
A Solid Waste Disposal on Land	0	-	471.5	0.0	5.2	57.8	20.7
B Wastewater Handling	0	-	0.0	0.0	0.0	0.0	0.3
C Waste Incineration	-	-	-	-	-	-	-
D Other	0	-	19.8	0.1	1.2	12.1	5.1
7 Other	727	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	18,024	-	2.0	0.3	272.9	17.0	11.4
Aviation	5,948	-	1.5	-	23.6	9.8	0.2
Marine	12,076	-	0.6	0.3	249.3	7.2	11.2
CO <sub>2</sub> Emissions from Biomass	12,304	-	-	-	-	-	-

Ref.: "Inventario de gases de efecto invernadero 1990 - 1995", Submission to the Commission under the Monitoring Mechanism, 5 March 1999

Note (1): The national communication excludes CO<sub>2</sub> emissions from sector 4 and 6 for the national total as they are considered to be from renewable sources (sector 4: 18,725 Gg and sector 6: 2,161 Gg CO<sub>2</sub>).

Note (2): Spain delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Spain 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Spain 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>237,446</b>	<b>28,970</b>	<b>2,331.5</b>	<b>87.5</b>	<b>1,205.8</b>	<b>4,624.2</b>	<b>1,186.3</b>
1 Energy	220,168	-	696.3	21.8	1,181.9	3,959.8	669.0
A Fuel Combustion	219,730	-	75.1	21.8	1,181.9	3,959.8	467.2
1 Energy Industries	77,645	-	12.5	10.6	278.8	26.1	31.4
2 Manufacturing Industries and Construction	52,657	-	6.3	5.7	198.3	422.0	19.3
3 Transport	61,625	-	13.1	2.7	592.8	2,582.4	343.1
4 Other Sectors	27,803	-	43.2	2.9	112.0	929.3	73.4
5 Other	-	-	-	-	-	-	-
B Fugitive Emissions from Fuels	438	-	621.3	0.0	0.0	0.0	201.8
1 Solid Fuels	0	-	528.1	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	438	-	93.2	0.0	0.0	0.0	201.8
2 Industrial Processes	16,469	-	2.3	8.0	8.8	242.0	48.1
A Mineral Products	14,215	-	0.0	0.0	0.0	0.0	0.0
B Chemical Industry	643	-	1.0	8.0	5.4	0.0	22.0
C Metal Production	1,304	-	1.3	0.0	1.9	242.0	1.5
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	307	-	0.0	0.0	1.6	0.0	24.6
3 Solvent and Other Product Use	0	-	0.0	0.0	0.0	0.0	341.9
4 Agriculture	0	-	949.4	57.5	5.1	346.0	90.1
A Enteric Fermentation	0	-	345.2	0.0	0.0	0.0	0.0
B Manure Management	0	-	499.3	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	8.0	0.3	0.0	0.0	0.0
D Agricultural Soils	0	-	78.2	57.2	0.0	0.0	71.1
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	0	-	18.9	0.0	5.1	346.0	18.9
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	28,970	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	28,970	-	-	-	-	-
6 Waste	0	-	683.4	0.1	9.9	76.4	37.3
A Solid Waste Disposal on Land	0	-	655.6	0.0	5.5	61.8	22.1
B Wastewater Handling	0	-	0.0	0.0	0.0	0.0	0.6
C Waste Incineration	-	-	-	-	-	-	-
D Other	0	-	27.8	0.1	4.4	14.5	14.6
7 Other	809	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	19,144	-	2.3	0.3	286.9	18.5	12.2
Aviation	6,726	-	1.7	-	26.7	11.1	0.2
Marine	12,418	-	0.6	0.3	260.2	7.4	12.0
CO <sub>2</sub> Emissions from Biomass	12,631	-	-	-	-	-	-

Ref.: "Inventario de gases de efecto invernadero 1990 - 1995", Submission to the Commission under the Monitoring Mechanism, 5 March 1999

Note (1): The national communication excludes CO<sub>2</sub> emissions from sector 4 and 6 for the national total as they are considered to be from renewable sources (sector 4: 18 400 Gg and sector 6: 2 562 Gg CO<sub>2</sub>).

Note (2): Spain delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Spain 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Spain 1995 Greenhouse Gas Source and Sink Categories	CO <sub>2</sub>	CO <sub>2</sub> Removals	EMISSION ESTIMATES (Gg)				
			CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>247,703</b>	-	<b>2,370.4</b>	<b>90.5</b>	<b>1,221.6</b>	<b>4,356.8</b>	<b>1,152.0</b>
1 Energy	230,093	-	700.6	23.3	1,200.1	3,732.8	643.0
A Fuel Combustion	229,675	-	71.9	23.3	1,200.1	3,732.8	445.2
1 Energy Industries	84,330	-	12.9	11.8	293.6	29.8	31.4
2 Manufacturing Industries and Construction	52,968	-	5.3	5.5	194.1	357.5	16.7
3 Transport	64,268	-	11.8	3.0	598.3	2,433.6	324.2
4 Other Sectors	28,110	-	41.9	3.0	114.0	911.9	72.9
5 Other	-	-	-	-	-	-	-
B Fugitive Emissions from Fuels	418	-	628.7	0.0	0.0	0.0	197.8
1 Solid Fuels	0	-	520.1	0.0	0.0	0.0	0.0
2 Oil and Natural Gas	418	-	108.6	0.0	0.0	0.0	197.8
2 Industrial Processes	17,278	-	2.0	8.4	9.2	244.4	49.7
A Mineral Products	14,806	-	0.0	0.0	0.0	0.0	0.0
B Chemical Industry	656	-	0.9	8.4	5.6	0.0	22.3
C Metal Production	1,503	-	1.1	0.0	1.9	244.4	1.6
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	313	-	0.0	0.0	1.7	0.0	25.8
3 Solvent and Other Product Use	0	-	0.0	0.0	0.0	0.0	331.9
4 Agriculture	0	-	949.3	58.6	4.5	302.8	87.6
A Enteric Fermentation	0	-	342.9	0.0	0.0	0.0	0.0
B Manure Management	0	-	504.7	0.0	0.0	0.0	0.0
C Rice Cultivation	0	-	6.5	0.2	0.0	0.0	0.0
D Agricultural Soils	0	-	78.8	58.4	0.0	0.0	71.2
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	0	-	16.4	0.0	4.5	302.8	16.4
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	-	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	-	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	0	-	718.5	0.2	7.9	76.9	39.7
A Solid Waste Disposal on Land	0	-	659.2	0.0	5.5	61.8	22.1
B Wastewater Handling	0	-	0.0	0.0	0.0	0.0	0.6
C Waste Incineration	-	-	-	-	-	-	-
D Other	0	-	59.3	0.2	2.3	15.1	17.0
7 Other	332	-	0.0	0.0	0.0	0.0	0.0
<b>Memo Items:</b>							
International Bunkers	19,144	-	2.3	0.3	286.9	18.5	12.2
Aviation	6,726	-	1.7	-	26.7	11.1	0.2
Marine	12,418	-	0.6	0.3	260.2	7.4	12.0
CO <sub>2</sub> Emissions from Biomass	12,438	-	-	-	-	-	-

Ref.: "Inventario de gases de efecto invernadero 1990 - 1995", Submission to the Commission under the Monitoring Mechanism, 5 March 1999.

Note (1): The national communication excludes CO<sub>2</sub> emissions from sector 4 and 6 for the national total as they are considered to be from renewable sources (sector 4: 17 386 Gg and sector 6: 2 623 Gg CO<sub>2</sub>).

Note (2): Spain delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Sweden 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES								
Sweden 1990 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						CO	NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>			
<b>Total National Emissions and Removals</b>	<b>55,443</b>	<b>34,368</b>	<b>284.0</b>	<b>26.0</b>	<b>336.0</b>	<b>1,211.0</b>	<b>516.0</b>	
1 Energy	51,381	-	40.0	6.0	313.0	1,205.0	382.0	
A Fuel Combustion	51,328	-	40.0	6.0	313.0	1,205.0	356.0	
1 Energy Industries	8,849	-	1.0	1.0	16.0	6.0	3.0	
2 Manufacturing Industries and Construction	13,050	-	5.0	2.0	23.0	28.0	6.0	
3 Transport	18,650	-	23.0	3.0	261.0	1,046.0	216.0	
4 Other Sectors	10,672	-	10.0	1.0	12.0	124.0	131.0	
5 Other	107	-	0.0	0.0	0.0	0.0	0.0	
B Fugitive Emissions from Fuels	53	-	0.0	-	0.0	0.0	26.0	
1 Solid Fuels	-	-	0.0	-	-	-	-	
2 Oil and Natural Gas	53	-	0.0	-	0.0	0.0	26.0	
2 Industrial Processes	3,786	-	0.0	3.0	23.0	6.0	42.0	
A Mineral Products	2,018	-	-	-	-	0.0	6.0	
B Chemical Industry	0	-	0.0	3.0	5.0	0.0	5.0	
C Metal Production	396	-	0.0	0.0	2.0	2.0	0.0	
D Other Production	31	-	-	-	0.0	0.0	0.0	
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-	
G Other	1,341	-	0.0	0.0	10.0	4.0	30.0	
3 Solvent and Other Product Use	276	-	-	0.0	-	-	92.0	
4 Agriculture	-	-	160.0	17.0	0.0	0.0	-	
A Enteric Fermentation	-	-	147.0	-	-	-	-	
B Manure Management	-	-	13.0	2.0	-	-	-	
C Rice Cultivation	-	-	0.0	-	-	-	-	
D Agricultural Soils	-	-	-	15.0	-	-	-	
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	-	
F Field Burning of Agricultural Residues	-	-	0.0	0.0	0.0	0.0	-	
G Other	-	-	0.0	0.0	-	-	-	
5 Land-Use Change & Forestry	0	34,368	-	-	-	-	-	
A Changes in Forest and Other Woody Biomass Stocks	0	34,368	-	-	-	-	-	
B Forest and Grassland Conversion	0	-	-	-	-	-	-	
C Abandonment of Managed Lands	-	0	-	-	-	-	-	
D CO <sub>2</sub> Emissions and Removals from Soil	0	0	-	-	-	-	-	
E Other	0	0	-	-	-	-	-	
6 Waste	-	-	85.0	0.0	0.0	0.0	0.0	0.0
A Solid Waste Disposal on Land	-	-	85.0	-	-	-	-	-
B Wastewater Handling	-	-	0.0	0.0	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-	-
D Other	-	-	0.0	0.0	-	-	-	-
7 Other	-	-	-	-	-	-	-	-
<b>Memo Items:</b>								
International Bunkers	4,207	-	0.0	0.0	52.0	6.0	2.0	
Aviation	2,045	-	0.0	NE	4.0	4.0	1.0	
Marine	2,162	-	NE	NE	48.0	3.0	1.0	
CO <sub>2</sub> Emissions from Biomass	21,450	-	-	-	-	-	-	-

Ref.: Updated national GHG inventories 1990, 1996, and inventory 1997; Submission by the Swedish EPA to the EEA, 1 April 1999

## Sweden 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Sweden 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>58,438</b>	<b>30,000</b>	<b>302.4</b>	<b>9.3</b>	<b>329.5</b>	<b>1,142.4</b>	<b>477.5</b>
1 Energy	53,962	-	39.0	6.8	302.5	1,088.4	358.1
A Fuel Combustion	53,946	-	39.0	6.8	302.5	1,088.4	343.4
1 Energy Industries	11,068	-	1.7	1.2	14.2	7.4	4.6
2 Manufacturing Industries and Construction	13,938	-	5.4	2.2	18.1	30.1	5.5
3 Transport	18,685	-	20.8	2.9	260.3	914.6	187.5
4 Other Sectors	10,148	-	11.1	0.5	9.9	136.3	145.8
5 Other	107	-	-	-	-	-	-
B Fugitive Emissions from Fuels	16	-	-	-	-	-	14.7
1 Solid Fuels	-	-	-	-	-	-	-
2 Oil and Natural Gas	16	-	-	-	-	-	14.7
2 Industrial Processes	4,227	-	-	2.3	27.0	54.0	36.0
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	249	-	-	-	-	-	83.4
4 Agriculture	-	-	202.3	0.2	-	-	-
A Enteric Fermentation	-	-	183.7	-	-	-	-
B Manure Management	-	-	18.7	-	-	-	-
C Rice Cultivation	-	-	-	0.2	-	-	-
D Agricultural Soils	-	-	-	-	-	-	-
E Prescribed Burning of Savannas	-	-	-	-	-	-	-
F Field Burning of Agricultural Residues	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	30,000	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	30,000	-	-	-	-	-
B Forest and Grassland Conversion	-	-	-	-	-	-	-
C Abandonment of Managed Lands	-	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	-	-	61.0	-	-	-	-
A Solid Waste Disposal on Land	-	-	61.0	-	-	-	-
B Wastewater Handling	-	-	-	-	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	5,400	-	0.1	NE	54.0	6.2	1.6
Aviation	2,100	-	IE	-	IE	IE	IE
Marine	3,300	-	0.1	-	54.0	6.2	1.6
CO <sub>2</sub> Emissions from Biomass	-	-	-	-	-	-	-

Ref.: "Swedish submission of annual inventories of greenhouse gases for 1996 (preliminary) and revisions for the years 1990 through 1995", Ministry of the Environment, 9 March 1998.

Note: Sweden delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Sweden 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Sweden 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>58,108</b>	<b>30,000</b>	<b>297.0</b>	<b>9.2</b>	<b>309.0</b>	<b>1,089.0</b>	<b>457.0</b>
1 Energy	53,401	-	38.0	6.8	281.0	1,040.0	337.0
A Fuel Combustion	53,385	-	38.0	6.8	281.0	1,040.0	322.0
1 Energy Industries	10,493	-	2.0	1.1	11.8	10.7	5.2
2 Manufacturing Industries and Construction	13,541	-	5.7	2.3	20.0	32.2	6.2
3 Transport	19,341	-	20.2	2.9	241.0	873.1	178.9
4 Other Sectors	9,903	-	10.1	0.5	8.6	124.2	132.2
5 Other	107	-	NE	NE	NE	NE	NE
B Fugitive Emissions from Fuels	16	-	NE	-	-	-	14.7
1 Solid Fuels	NO	-	NO	-	-	-	NO
2 Oil and Natural Gas	16	-	NE	-	-	-	14.7
2 Industrial Processes	4,458	-	NE	2.3	27.5	49.0	36.1
A Mineral Products	-	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	-	-	-	-	-	-	-
3 Solvent and Other Product Use	249	-	-	NE	-	-	83.4
4 Agriculture	-	-	198.0	0.2	-	-	-
A Enteric Fermentation	-	-	179.3	-	-	-	-
B Manure Management	-	-	19.1	-	-	-	-
C Rice Cultivation	NO	-	NO	NO	-	-	-
D Agricultural Soils	NE	-	-	0.2	-	-	-
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	NO	NO	NO	NO	NO
G Other	-	-	-	-	-	-	-
5 Land-Use Change & Forestry	-	30,000	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	-	30,000	-	-	-	-	-
B Forest and Grassland Conversion	NE	-	-	-	-	-	-
C Abandonment of Managed Lands	NE	-	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	-	-	-	-	-	-	-
E Other	-	-	-	-	-	-	-
6 Waste	-	-	61.0	-	-	-	-
A Solid Waste Disposal on Land	-	-	61.0	-	-	-	-
B Wastewater Handling	-	-	NE	-	-	-	-
C Waste Incineration	IE	-	IE	IE	IE	IE	IE
D Other	-	-	-	-	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	5,367	-	0.1	NE	54.0	6.0	1.5
Aviation	2,067	-	IE	-	IE	IE	IE
Marine	3,300	-	0.1	-	54.0	6.0	1.5
CO <sub>2</sub> Emissions from Biomass	IE	-	IE	IE	IE	IE	IE

Ref.: "Swedish submission of annual inventories of greenhouse gases for 1996 (preliminary) and revisions for the years 1990 through 1995", Ministry of the Environment, 9 March 1998.

Note: Sweden delivered data in accordance with the 1995 IPCC Guidelines. This table presents these data in the format of the Revised 1996 IPCC Guidelines for consistency reasons.

## Sweden 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
Sweden 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>63,352</b>	<b>31,774</b>	<b>261.0</b>	<b>26.0</b>	<b>301.0</b>	<b>1,082.0</b>	<b>458.0</b>
1 Energy	59,391	-	38.0	7.0	273.0	1,033.0	338.0
A Fuel Combustion	59,391	-	38.0	7.0	273.0	1,033.0	323.0
1 Energy Industries	14,295	-	2.0	2.0	15.0	13.0	5.0
2 Manufacturing Industries and Construction	14,400	-	5.0	3.0	48.0	40.0	10.0
3 Transport	19,573	-	19.0	2.0	172.0	829.0	160.0
4 Other Sectors	11,016	-	11.0	1.0	38.0	151.0	149.0
5 Other	107	-	0.0	0.0	0.0	0.0	0.0
B Fugitive Emissions from Fuels	0	-	0.0	-	0.0	0.0	15.0
1 Solid Fuels	-	-	0.0	-	-	-	-
2 Oil and Natural Gas	-	-	0.0	-	0.0	0.0	15.0
2 Industrial Processes	3,711	-	0.0	3.0	27.0	49.0	36.0
A Mineral Products	1,953	-	-	-	-	0.0	0.0
B Chemical Industry	0	-	0.0	3.0	4.0	0.0	3.0
C Metal Production	457	-	0.0	0.0	4.0	49.0	1.0
D Other Production	31	-	-	-	0.0	0.0	33.0
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-	-
G Other	1,271	-	0.0	0.0	13.0	0.0	0.0
3 Solvent and Other Product Use	250	-	-	0.0	-	-	83.0
4 Agriculture	-	-	163.0	17.0	0.0	0.0	-
A Enteric Fermentation	-	-	146.0	-	-	-	-
B Manure Management	-	-	16.0	2.0	-	-	-
C Rice Cultivation	-	-	0.0	-	-	-	-
D Agricultural Soils	-	-	-	15.0	-	-	-
E Prescribed Burning of Savannas	-	-	0.0	0.0	0.0	0.0	-
F Field Burning of Agricultural Residues	-	-	0.0	0.0	0.0	0.0	-
G Other	-	-	0.0	0.0	-	-	-
5 Land-Use Change & Forestry	0	31,774	-	-	-	-	-
A Changes in Forest and Other Woody Biomass Stocks	0	31,774	-	-	-	-	-
B Forest and Grassland Conversion	0	-	-	-	-	-	-
C Abandonment of Managed Lands	-	0	-	-	-	-	-
D CO <sub>2</sub> Emissions and Removals from Soil	0	0	-	-	-	-	-
E Other	0	0	-	-	-	-	-
6 Waste	-	-	61.0	0.0	0.0	0.0	0.0
A Solid Waste Disposal on Land	-	-	61.0	-	-	-	-
B Wastewater Handling	-	-	0.0	0.0	-	-	-
C Waste Incineration	-	-	-	-	-	-	-
D Other	-	-	0.0	0.0	-	-	-
7 Other	-	-	-	-	-	-	-
<b>Memo Items:</b>							
International Bunkers	4,899	-	0.0	0.0	53.0	3.0	0.0
Aviation	1,302	-	0.0	0.0	4.0	1.0	0.0
Marine	3,597	-	0.0	0.0	50.0	3.0	0.0
CO <sub>2</sub> Emissions from Biomass	25,833	-	-	-	-	-	-

Ref.: Updated national GHG inventories 1990, 1996, and inventory 1997; Submission by the Swedish EPA to the EEA, 1 April 1999

## HFC/PFC/SF<sub>6</sub> emissions in Sweden 1990, 1994-96

Sweden 1990 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	0.000	0.000	0.000	NE	0.000	NE
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

  

Sweden 1994 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	0.150	-	0.060	-	0.052
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

  

Sweden 1995 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	-	0.150	-	0.060	-	0.050
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

  

Sweden 1996 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	0.000	0.000	0.000	0.000	0.000	0.000
2 Industrial Processes	-	-	-	-	-	-
A Mineral Products	-	-	-	-	-	-
B Chemical Industry	-	-	-	-	-	-
C Metal Production	-	-	-	-	-	-
D Other Production	-	-	-	-	-	-
E Production of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
F Consumption of Halocarbons and Sulphur Hexafluoride	-	-	-	-	-	-
G Other	-	-	-	-	-	-

Ref.: "Swedish submission of annual inventories of greenhouse gases for 1996 (preliminary) and revisions for the years 1990 through 1995", Ministry of the Environment, 9 March 1998 and Updated national GHG inventories 1990, 1996, and inventory 1997; Submission by the Swedish EPA to the EEA, 1 April 1999

## United Kingdom 1990

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
United Kingdom 1990	EMISSION ESTIMATES (Gg)						NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	
Greenhouse Gas Source and Sink Categories							
<b>Total National Emissions and Removals</b>	<b>614,825</b>	<b>11,453</b>	<b>4,438.0</b>	<b>215.0</b>	<b>2,747.0</b>	<b>6,685.0</b>	<b>2,550.0</b>
1 Energy	568,589	-	1,424.8	15.5	2,722.6	6,366.7	1,571.3
A Fuel Combustion	558,774	-	105.3	15.5	2,715.1	6,331.4	1,148.5
1 Energy Industries	230,775	-	7.5	6.3	885.0	315.8	6.9
2 Manufacturing Industries and Construction	94,627	-	13.1	3.1	245.4	690.6	46.9
3 Transport	115,901	-	31.5	4.2	1,389.5	4,852.9	979.2
4 Other Sectors	112,207	-	53.0	1.7	141.0	463.9	113.7
5 Other	5,264	-	0.2	0.2	54.3	8.2	1.8
B Fugitive Emissions from Fuels	9,815	-	1,319.5	NE	7.4	35.3	422.8
1 Solid Fuels	907	-	818.6	NO	2.3	1.6	3.6
2 Oil and Natural Gas	8,908	-	500.9	NE	5.2	33.7	419.3
2 Industrial Processes	13,916	-	0.8	95.3	11.0	49.7	244.3
A Mineral Products	8,132	-	NO	NO	NO	NO	9.8
B Chemical Industry	1,365	-	NO	95.2	8.1	NE	150.4
C Metal Production	4,420	-	0.8	0.0	3.0	49.7	5.2
D Other Production	NO	-	NO	NO	NO	NO	78.9
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	NO	-	NO	NO	NO	NO	NO
3 Solvent and Other Product Use	NO	-	NO	NO	NO	NO	680.5
4 Agriculture	NO	-	1,089.6	103.8	9.1	266.0	35.0
A Enteric Fermentation	NO	-	953.0	NO	NO	NO	NO
B Manure Management	NO	-	124.0	5.2	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	NO	98.4	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	13.0	0.3	9.1	266.0	35.0
G Other	NO	-	NO	NO	NO	NO	NO
5 Land-Use Change & Forestry	31,660	11,453	NE	NO	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	9,685	NE	NO	NO	NO	NO
B Forest and Grassland Conversion	26,563	-	NE	NO	NO	NO	NO
C Abandonment of Managed Lands	-	1,402	NO	NO	NO	NO	NO
D CO <sub>2</sub> Emissions and Removals from Soil	1,430	-	NE	NO	NO	NO	NO
E Other	3,667	367	NE	NO	NO	NO	NO
6 Waste	660	-	1,923.0	0.4	4.5	2.9	19.0
A Solid Waste Disposal on Land	0	-	1,890.0	NO	NO	NO	18.9
B Wastewater Handling	0	-	33.0	NE	NO	NO	NO
C Waste Incineration	660	-	0.0	0.4	4.5	2.9	0.1
D Other	-	-	-	-	-	-	-
7 Other	NO	-	NO	NO	NO	NO	0.0
<b>Memo Items:</b>							
International Bunkers	21,349	-	3.5	0.9	192.4	75.6	41.3
Aviation	14,790	-	2.9	0.5	72.8	60.1	36.9
Marine	6,559	-	0.6	0.4	119.6	15.5	4.4
CO <sub>2</sub> Emissions from Biomass	1,136	-	-	-	-	-	-

Ref.: "UK Greenhouse Gas Emission Inventory, 1990 to 1996", December 1998.

## United Kingdom 1994

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
United Kingdom 1994 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NMVOCS
<b>Total National Emissions and Removals</b>	<b>583,502</b>	<b>18,040</b>	<b>3,785.0</b>	<b>188.0</b>	<b>2,289.0</b>	<b>5,359.0</b>	<b>2,248.0</b>
1 Energy	540,873	-	894.9	17.8	2,279.0	5,313.5	1,385.0
A Fuel Combustion	531,436	-	100.1	17.8	2,273.2	5,279.0	947.6
1 Energy Industries	198,905	-	12.8	5.7	647.1	240.5	8.9
2 Manufacturing Industries and Construction	92,249	-	12.9	2.9	234.0	687.0	46.3
3 Transport	118,353	-	26.9	7.3	1,210.5	3,922.9	790.7
4 Other Sectors	118,221	-	47.2	1.6	142.1	422.8	100.5
5 Other	3,707	-	0.2	0.2	39.5	5.9	1.3
B Fugitive Emissions from Fuels	9,437	-	794.8	NE	5.8	34.5	437.4
1 Solid Fuels	208	-	326.7	NO	0.8	0.5	2.7
2 Oil and Natural Gas	9,228	-	468.2	NE	5.0	34.0	434.7
2 Industrial Processes	11,836	-	0.5	72.6	7.2	43.2	225.1
A Mineral Products	7,057	-	NO	NO	NO	NO	10.2
B Chemical Industry	1,095	-	NO	72.5	4.6	NE	129.5
C Metal Production	3,685	-	0.5	0.0	2.6	43.2	5.0
D Other Production	NO	-	NO	NO	NO	NO	80.4
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	NO	-	NO	NO	NO	NO	NO
3 Solvent and Other Product Use	NO	-	NO	NO	NO	NO	620.3
4 Agriculture	NO	-	1,063.6	97.6	0.0	0.0	0.0
A Enteric Fermentation	NO	-	939.8	NO	NO	NO	NO
B Manure Management	NO	-	123.8	5.1	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	NO	92.6	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	0.0	0.0	0.0	0.0	0.0
G Other	NO	-	NO	NO	NO	NO	NO
5 Land-Use Change & Forestry	30,355	18,040	NE	NE	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	10,495	NE	NE	NO	NO	NO
B Forest and Grassland Conversion	25,418	-	NE	NO	NO	NO	NO
C Abandonment of Managed Lands	-	7,179	NE	NO	NO	NO	NO
D CO <sub>2</sub> Emissions and Removals from Soil	1,270	-	NO	NO	NO	NO	NO
E Other	3,667	367	NE	NO	NO	NO	NO
6 Waste	439	-	1,826.0	0.3	3.1	2.3	18.0
A Solid Waste Disposal on Land	0	-	1,790.0	NO	NO	NO	17.9
B Wastewater Handling	0	-	36.0	NE	NO	NO	NO
C Waste Incineration	439	-	0.0	0.3	3.1	2.3	0.1
D Other	-	-	-	-	-	-	-
7 Other	NO	-	NO	NO	NO	NO	0.0
<b>Memo Items:</b>							
International Bunkers	24,243	-	3.8	1.0	201.7	84.9	47.2
Aviation	18,094	-	3.2	0.6	89.6	70.3	43.0
Marine	6,150	-	0.6	0.4	112.1	14.5	4.2
CO <sub>2</sub> Emissions from Biomass	1,136	-	-	-	-	-	-

Ref.: "UK Greenhouse Gas Emission Inventory, 1990 to 1996", December 1998.

## United Kingdom 1995

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
United Kingdom 1995 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						NMVOC
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	
<b>Total National Emissions and Removals</b>	<b>574,054</b>	<b>18,826</b>	<b>3,751.0</b>	<b>183.0</b>	<b>2,137.0</b>	<b>4,935.0</b>	<b>2,117.0</b>
1 Energy	531,977	-	912.5	18.9	2,129.5	4,888.6	1,262.7
A Fuel Combustion	524,887	-	90.0	18.9	2,123.7	4,863.9	861.8
1 Energy Industries	199,905	-	14.5	5.9	595.0	229.8	7.2
2 Manufacturing Industries and Construction	90,142	-	12.9	2.7	224.1	640.5	43.4
3 Transport	117,288	-	25.4	8.8	1,128.2	3,628.7	718.0
4 Other Sectors	114,156	-	37.1	1.4	139.0	359.3	91.9
5 Other	3,396	-	0.2	0.1	37.4	5.5	1.2
B Fugitive Emissions from Fuels	7,091	-	822.5	NE	5.8	24.7	400.9
1 Solid Fuels	185	-	360.6	NO	0.7	0.5	2.7
2 Oil and Natural Gas	6,905	-	461.9	NE	5.1	24.2	398.1
2 Industrial Processes	11,344	-	0.7	66.1	4.5	44.4	221.2
A Mineral Products	7,173	-	NO	NO	NO	NO	9.6
B Chemical Industry	786	-	NO	66.1	1.7	NE	125.6
C Metal Production	3,385	-	0.7	0.0	2.8	44.4	5.0
D Other Production	NO	-	NO	NO	NO	NO	81.0
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	NO	-	NO	NO	NO	NO	NO
3 Solvent and Other Product Use	NO	-	NO	NO	NO	NO	615.5
4 Agriculture	NO	-	1,054.0	98.0	0.0	0.0	NO
A Enteric Fermentation	NO	-	931.6	NO	NO	NO	NO
B Manure Management	NO	-	122.4	5.0	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	NO	93.0	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NE	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	0.0	0.0	0.0	0.0	0.0
G Other	NO	-	NO	NO	NO	NO	NO
5 Land-Use Change & Forestry	30,300	18,826	NE	NO	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	10,584	NE	NO	NO	NO	NO
B Forest and Grassland Conversion	25,104	-	NE	NO	NO	NO	NO
C Abandonment of Managed Lands	-	7,876	NE	NO	NO	NO	NO
D CO <sub>2</sub> Emissions and Removals from Soil	1,529	-	NO	NO	NO	NO	NO
E Other	3,667	367	NE	NO	NO	NO	NO
6 Waste	432	-	1,784.0	0.3	3.0	2.0	16.6
A Solid Waste Disposal on Land	0	-	1,750.0	NO	NO	NO	17.5
B Wastewater Handling	0	-	34.0	NO	NO	NO	NO
C Waste Incineration	432	-	0.0	0.3	3.0	2.0	0.1
D Other	-	-	-	-	-	-	-
7 Other	NO	-	NO	NO	NO	NO	0.0
<b>Memo Items:</b>							
International Bunkers	26,086	-	4.0	1.0	217.2	89.8	49.8
Aviation	19,487	-	3.4	0.6	96.8	74.2	45.3
Marine	6,599	-	0.6	0.4	120.3	15.6	4.5
CO <sub>2</sub> Emissions from Biomass	1,136	-	-	-	-	-	-

Ref.: "UK Greenhouse Gas Emission Inventory, 1990 to 1996", December 1998.

## United Kingdom 1996

IPCC TABLE 7A - SUMMARY REPORT FOR NATIONAL GREENHOUSE GAS INVENTORIES							
United Kingdom 1996 Greenhouse Gas Source and Sink Categories	EMISSION ESTIMATES (Gg)						
	CO <sub>2</sub>	CO <sub>2</sub> Removals	CH <sub>4</sub>	N <sub>2</sub> O	NO <sub>x</sub>	CO	NM VOC
<b>Total National Emissions and Removals</b>	<b>593,422</b>	<b>18,672</b>	<b>3,712.0</b>	<b>189.0</b>	<b>2,052.0</b>	<b>4,641.0</b>	<b>2,028.0</b>
1 Energy	551,369	-	893.5	20.5	2,044.6	4,594.1	1,199.6
A Fuel Combustion	543,880	-	93.5	20.5	2,038.7	4,567.7	800.4
1 Energy Industries	199,698	-	17.0	6.1	556.1	207.0	8.0
2 Manufacturing Industries and Construction	91,742	-	13.2	2.6	223.7	656.1	44.4
3 Transport	121,882	-	24.2	10.2	1,070.7	3,330.2	651.9
4 Other Sectors	127,481	-	39.0	1.6	153.2	369.3	94.9
5 Other	3,077	-	0.2	0.1	35.1	5.1	1.2
B Fugitive Emissions from Fuels	7,488	-	800.0	NE	5.9	26.4	399.2
1 Solid Fuels	50	-	338.4	NO	0.4	0.2	2.7
2 Oil and Natural Gas	7,438	-	461.6	NE	5.5	26.2	396.5
2 Industrial Processes	11,703	-	0.7	70.3	4.4	45.2	207.8
A Mineral Products	7,036	-	NO	NO	NO	NO	8.5
B Chemical Industry	862	-	NO	70.3	1.6	NE	113.3
C Metal Production	3,805	-	0.7	0.0	2.8	45.2	5.1
D Other Production	NO	-	NO	NO	NO	NO	81.0
E Production of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	NO	-	NO	NO	NO	NO	NO
G Other	NO	-	NO	NO	NO	NO	NO
3 Solvent and Other Product Use	NO	-	NO	NO	NO	NO	603.7
4 Agriculture	NO	-	1,063.6	98.3	0.0	0.0	0.0
A Enteric Fermentation	NO	-	939.9	NO	NO	NO	NO
B Manure Management	NO	-	123.7	5.1	NO	NO	NO
C Rice Cultivation	NO	-	NO	NO	NO	NO	NO
D Agricultural Soils	NO	-	NO	93.2	NO	NO	NO
E Prescribed Burning of Savannas	NO	-	NO	NO	NO	NO	NO
F Field Burning of Agricultural Residues	NO	-	0.0	0.0	0.0	0.0	0.0
G Other	NO	-	NO	NO	NO	NO	NO
5 Land-Use Change & Forestry	29,971	18,672	NE	NO	NO	NO	NO
A Changes in Forest and Other Woody Biomass Stocks	-	10,624	NE	NO	NO	NO	NO
B Forest and Grassland Conversion	24,789	-	NE	NO	NO	NO	NO
C Abandonment of Managed Lands	-	7,681	NE	NO	NO	NO	NO
D CO <sub>2</sub> Emissions and Removals from Soil	1,515	-	NO	NO	NO	NO	NO
E Other	3,667	367	NE	NO	NO	NO	NO
6 Waste	378	-	1,754.0	0.2	2.7	1.9	17.3
A Solid Waste Disposal on Land	0	-	1,720.0	NO	NO	NO	17.2
B Wastewater Handling	0	-	34.0	NO	NO	NO	NO
C Waste Incineration	378	-	0.0	0.2	2.7	1.9	0.1
D Other	-	-	-	-	-	-	-
7 Other	NO	-	NO	NO	NO	NO	0.0
<b>Memo Items:</b>							
International Bunkers	28,163	-	4.2	1.1	235.8	95.8	52.9
Aviation	20,950	-	3.6	0.6	104.3	78.8	48.1
Marine	7,213	-	0.7	0.5	131.5	17.1	4.9
CO <sub>2</sub> Emissions from Biomass	1,136	-	-	-	-	-	-

Ref.: "UK Greenhouse Gas Emission Inventory, 1990 to 1996", December 1998.

## HFC/PFC/SF<sub>6</sub> emissions in the United Kingdom 1990, 1994-96

United Kingdom 1990 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>0.034</b>	<b>1.049</b>	<b>0.037</b>	<b>0.308</b>	<b>0.100</b>	<b>0.024</b>
2 Industrial Processes	0.034	1.049	0.037	0.308	0.100	0.024
A Mineral Products	NO	NO	NO	NO	NO	NO
B Chemical Industry	NO	NO	NO	NO	NO	NO
C Metal Production	NO	NO	NO	0.300	0.020	0.020
D Other Production	NO	NO	NO	NO	NO	NO
E Production of Halocarbons and Sulphur Hexafluoride	NO	1.040	NO	0.000	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	0.034	0.009	0.037	0.008	0.080	0.004
G Other	NO	NO	NO	NO	NO	NO
United Kingdom 1994 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>1.299</b>	<b>1.577</b>	<b>0.062</b>	<b>0.069</b>	<b>0.100</b>	<b>0.026</b>
2 Industrial Processes	1.299	1.577	0.062	0.069	0.100	0.026
A Mineral Products	NO	NO	NO	NO	NO	NO
B Chemical Industry	NO	NO	NO	NO	NO	NO
C Metal Production	NO	NO	NO	0.060	0.020	0.020
D Other Production	NO	NO	NO	NO	NO	NO
E Production of Halocarbons and Sulphur Hexafluoride	NO	1.206	NO	0.000	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	1.299	0.371	0.062	0.009	0.080	0.006
G Other	NO	NO	NO	NO	NO	NO
United Kingdom 1995 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>1.903</b>	<b>1.958</b>	<b>0.122</b>	<b>0.081</b>	<b>0.105</b>	<b>0.030</b>
2 Industrial Processes	1.903	1.958	0.122	0.081	0.105	0.030
A Mineral Products	NO	NO	NO	NO	NO	NO
B Chemical Industry	NO	NO	NO	NO	NO	NO
C Metal Production	NO	NO	NO	0.055	0.025	0.025
D Other Production	NO	NO	NO	NO	NO	NO
E Production of Halocarbons and Sulphur Hexafluoride	NO	1.168	NO	0.000	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	1.903	0.791	0.122	0.026	0.080	0.005
G Other	NO	NO	NO	NO	NO	NO
United Kingdom 1996 Estimates in Gg	HFC		PFC		SF <sub>6</sub>	
	P	A	P	A	P	A
<b>Total National Emissions and Removals</b>	<b>2.509</b>	<b>2.150</b>	<b>0.128</b>	<b>0.079</b>	<b>0.110</b>	<b>0.035</b>
2 Industrial Processes	2.509	2.150	0.128	0.079	0.110	0.035
A Mineral Products	NO	NO	NO	NO	NO	NO
B Chemical Industry	NO	NO	NO	NO	NO	NO
C Metal Production	NO	NO	NO	0.050	0.030	0.030
D Other Production	NO	NO	NO	NO	NO	NO
E Production of Halocarbons and Sulphur Hexafluoride	NO	1.208	NO	0.000	NO	NO
F Consumption of Halocarbons and Sulphur Hexafluoride	2.509	0.942	0.128	0.029	0.080	0.005
G Other	NO	NO	NO	NO	NO	NO

Ref.: "UK Greenhouse Gas Emission Inventory, 1990 to 1996", December 1998